New Products To
Help The Engineer

March 9, 1959

RAILWAY AGE *weekly*

Canada picks rails over roads for new areas

Weed Killers

1959 may set a record

60 cents A Simmons-Boardman TIME-SAVER Publication

INSIDE STORY of the new attack on the HOT BOX PROBLEM

AAR APPROVED
for limited application
in interchange service

CLEVITE Sealed Sleeve Bearing Cartridge

...new, permanent, soundly engineered and economical journal bearing conversion for freight cars

Field Reports:

In continuing road and laboratory tests, under extremes of actual and simulated operating conditions, Clevite Cartridges are exceeding all performance expectations.

Careful shop checks show that Clevite Cartridges require less modification, are installed at lower cost than any other permanent conversion.

Keep your eye on CLEVITE!

DISTRIBUTED BY:

STANDARD CAR TRUCK COMPANY

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The CLEVITE Bearing Cartridge is a development of Cleveland Graphite Bronze Co. division of Clevite Corporation, Cleveland 10, Ohio

Easy installation, low upkeep make the "Hook Flange" the No. 1 guard rail

You can install Bethlehem's Design 751 Hook Flange Guard Rail with an absolute minimum tie-up of track. This guard is a sturdy one-piece rail, complete with its own special tie plates and side braces. The patented Hook Flange (see A, in sketch) is rolled into one side of the guard rail base.

Slides Quickly Into Place. All it takes to get the Design 751 in service is to raise the running rail, slide the guard rail into position, lower the running rail so that its base rests on top of the hooked flange, then spike the whole works into permanent place. No bolt holes to drill; no clamps to imbed in the ballast. Notice that the tie plates of the guard rail contain a specially contoured recess (see B, in drawing above) to receive the Hook Flange.

Weight of Train Holds Guard in Place. Once in place, the Hook Flange Guard Rail needs little attention. The weight of the passing train keeps the guard from flinching under lateral thrust. Double-shouldered tie plates bear against both rail bases to prevent spreading.

The Hook Flange Guard Rail is the safest device of its kind ever made. We've never heard of one failing under traffic. And that's saying a lot, because thousands of Bethlehem Hook Flange Guards are in service right now on leading roads. A nearby Bethlehem engineer will gladly cover any additional points with you. He can be reached through the nearest Bethlehem district sales office.

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.

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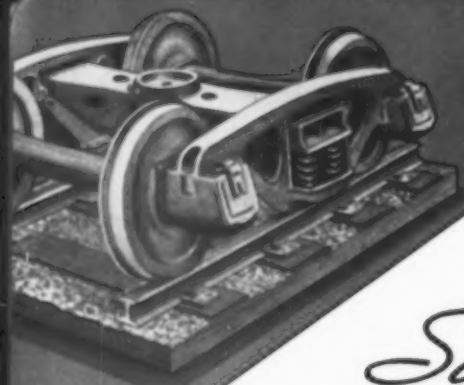
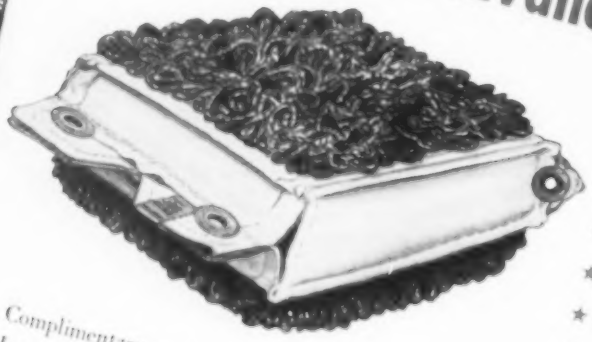


MEMO FROM THE GENERAL OFFICE

Jim—Still too many hot boxes Suggest using Acme Lubricators

The JBS ACME LUBRICATOR is a Positive Advance in Journal Lubrication



- ★ Retains 4 times its own weight in oil
- ★ Requires no modification of journal box
- ★ Wicks AAR specification car oil even in coldest weather
- ★ Assures better performance with less servicing
- ★ Cannot Glaze—Wool-cotton chenille loop surfaces
- ★ Has exclusive patented all-wool quilted core*
- ★ Reinforced for extra wear
- ★ Readily reclaimed

Complimentary reports are coming in from scores of railroads throughout America, Canada and Alaska using JBS Acme Journal Lubricators, a product of the Journal Box Servicing Corporation, that JBS Acme Lubricators are greatly reducing hot boxes in their operations. JBS Acme alone has the exclusive all-wool quilted core* which retains many times its own weight in oil reserve. Heavy chenille loop pile surfaces assure an ample supply of filtered oil at all times and prevent glazing. JBS Acme Lubricators are unaffected by temperature changes and wick AAR specification car oil even at 45° below zero in road service tests. JBS Acme Lubricators require no modification of the standard journal box, are designed to hold their position in the box, and assure better performance with less servicing.

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Week at a Glance

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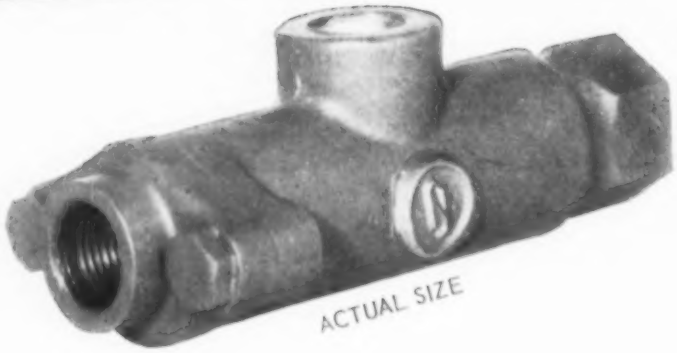
Introducing the new 3/8"

DOUBLE CHECK VALVE

NO. 24-A



DESIGNED

- FOR SERVICE AT ALL PRESSURE DIFFERENTIALS
- FOR EXTENDED SERVICE LIFE
- FOR SIMPLE INSTALLATION AND EASY MAINTENANCE

1 The rapid, sensitive response of this new check valve gives immediate and positive sealing with a pressure differential of as little as 1 psi. These same characteristics contribute excellent performance in balanced control operation.

2 Simplicity of design and careful selection of materials make this the most durable double check valve of its type available today.

3 The No. 24-A is light weight . . . only seven ounces . . . and requires no mounting brackets. Installation is very simple. The only maintenance ever required is the replacement of two O-rings on the shuttle valve after extended periods of service.

For further information, request General Letter No. 342.

THE NEW YORK AIR BRAKE COMPANY

230 PARK AVENUE • NEW YORK 17, N. Y.

Week at a Glance CONT.

Current Statistics

Operating revenue	
12 mos., 1958	$ 9,564,075,782
12 mos., 1957	10,506,244,265
Operating expenses	
12 mos., 1958	7,543,878,732
12 mos., 1957	8,237,720,185
Taxes	
12 mos., 1958	957,197,202
12 mos., 1957	1,069,845,890
Net railway operating income	
12 mos., 1958	761,744,586
12 mos., 1957	923,284,629
Net income estimated	
12 mos., 1958	602,000,000
12 mos., 1957	740,000,000
Average price 20 railroad stocks	
Mar. 3, 1959	109.69
Mar. 4, 1958	68.58
Carloadings revenue freight	
Eight weeks, 1959	4,457,938
Eight weeks, 1958	4,277,098
Freight cars on order	
February 1, 1959	29,470
February 1, 1958	48,787
Freight cars delivered	
1 month, 1959	1,940
1 month, 1958	7,219

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in better condition when they travel TOFC. At least one other road is interested.

Short and Significant

Brush control by helicopter . . .

may be the outcome of tests begun last week by the Western Maryland, E. I. duPont de Nemours & Co. and Agrirotors, Inc. In a demonstration at Gettysburg, Pa., a helicopter showed that both spray and pellets could be applied easily from the air. The trial application of pellets was thought to be the first from a helicopter in railroad weed and brush control work.

The Lackawanna has sold its NKP holdings . . .

because of a "weakened cash position." The DL&W liquidated its 628,722 shares of Nickel Plate common (15% of the voting stock) at 31 5/8 a share. Proceeds will be used to retire a $5,500,000 loan obtained last year for a new bridge over the upper Hackensack River, to help provide cash for "important" coordination projects, and to create a reserve.

Updating of freight tariffs . . .

is on the way. As part of a program to modernize tariffs to incorporate general increases, tariffs publishing the Dockets 28300, 30416 and 30660 class rates will be amended effective May 15 to reflect in the class rate scales all increases authorized through Ex Parte 206. Announcement of the action came last week from the Traffic Executive Association—Eastern Railroads, Executive Committee—Western Traffic Association, and Southern Freight Association.

Repeal of North Dakota's 'surplus crew' law . . .

moved closer to reality last week. The legislature adopted a measure which would eliminate the third brakeman on freights of more than 40 cars operated in the state. A 1919 law, requiring a six-man crew on most freight trains, costs North Dakota roads nearly $1,000,000 a year. If Governor John E. Davis signs the repeal bill, as expected, it will become effective July 1.

Passenger Losses Rise in East

Year-end figures show traffic on eastern roads continued to shrink at a more rapid rate than elsewhere in 1958. Superhighways, taxes, terminal costs, short hauls, commuter deficits blamed.

► **Railway Age recently told its readers why some western roads are optimistic for the future of passenger business (RA, Dec. 15, 1958, p. 20). This concluding article on the 1958 passenger picture describes what happened in the East last year—and tells why some eastern roads feel that their passenger problems are a shade worse than those elsewhere.**

Eastern railroads had no monopoly on the passenger problem last year; they just semed to have more of it.

Year-end figures posted last week showed declines in eastern passenger revenues ranging up to 19%. The decrease on a nation-wide basis was 8.2%.

Why is the passenger situation deteriorating more rapidly in the East—the nation's biggest transportation market—than elsewhere? These are the reasons most often cited:

- Competition from the country's most highly developed network of superhighways.
- Steep terminal costs.
- High land values and correspondingly high taxes.
- Numerous deficit-ridden short hauls.
- Staggering commuter losses.

In many cases, trains and their riders vanished together last year.

Much of the Baltimore & Ohio's sharp decline in total passengers carried, for example, could be attributed to discontinuance of New York-Baltimore passenger service on April 27.

In other cases, the riders disappeared though the service lingered. How long such scantily-patronized service could continue was a matter of mounting concern for eastern roads. The Lackawanna, for one, decided to try to drop its suburban service completely. The Lehigh Valley moved to end all passenger service.

The deteriorating situation in the East was underscored by the removal of cars from the rosters of the hard-hit roads—in some cases, new cars that were grabbed by more prosperous lines.

- The New Haven retired 59 units of passenger equipment in 1958, mostly old sleepers and parlor cars. (Two of the New Haven's lightweights—the "Daniel Webster" and the "John Quincy Adams"—went into storage during the year. A third, the Budd-built "Roger Williams," was split up and its units assigned elsewhere.)
- New York Central reduced its passenger fleet by 342 units. Some modern sleepers went west to the Illinois Central; another block went to the Canadian National.
- Boston & Maine sold 10 semi-streamlined, lightweight coaches (built in 1935) to the Long Island, sent other surplus cars—including stainless steel

(*Continued on page 50*)

HOW 1958 COMPARED WITH 1957 ON SEVEN EASTERN CARRIERS

		NH	PRR	B&O	NYC	B&M	DL&W	D&H
. . . in Dollars	COACH	—10.7%	—10.3%	—18.5%	*	—16.8%	— 7.3%	— 6.1%
	FIRST CLASS	—10.5%	—16.4%	—20.7%	*	*	—26.2%	—16.4%
	COMMUTER	+ 9.5%	+ 0.9%	— 4.1%	*	— 9.3%	+ 3.4%	+10.0%
	TOTAL	— 5.7%	—11.2%	—19.0%	*	—14.5%	— 3.3%	—10.5%
. . . in Riders	COACH	—15.2%	—12.1%	—26.0%	—11.1%	*	— 9.2%	—12.0%
	FIRST CLASS	—18.3%	—19.9%	—21.1%	—29.2%	*	—27.5%	—20.4%
	COMMUTER	— 4.4%	— 2.8%	— 3.4%	— 3.4%	*	— 7.7%	— 8.7%
	TOTAL	—12.4%	— 8.7%	—20.4%	— 7.1%	*	— 8.1%	—12.7%

*Year end figures not available at press time

PRR Lawyer Named REA Chief

The storm-tossed Railway Express Agency has a new president—a man who says frankly that he will bring a "railroad point of view" to the agency's management.

His name is William B. Johnson. Until March 1, when he succeeded Alfred L. Hammell as REA president, he was assistant general counsel for the Pennsylvania. Mr. Hammell has moved up to chairman of the board.

The fate of Railway Express has been in some doubt since the New York Central announced it would withdraw from its REA contract effective Jan. 1, 1960 (RA, Jan. 5, p. 7). Other major carriers have agreed to take no action until April 30 of this year.

What the new REA president plans to do between now and the April 30th deadline was causing considerable speculation last week. But Mr. Johnson wasn't showing his hand. He issued a statement saying that the express situation remained "critical" and that "all phases of the business are still under study." He added:

"The significance of my appointment, as I see it, is simply that, in view of Mr. Hammell's rather imminent retirement, the board of directors felt that one who has been identified closely with the railroad point of view could now serve to advantage in the agency's management.

"Fortunately, I will have the daily counsel of Mr. Hammell, who continues as a director and as chairman of the board. We are both hopeful, of course, that our past and continuing efforts will be helpful in formulating a basis for future operations holding prospects for a satisfactory result."

Only a few months ago the railroad which the new REA president has been identified with since 1946 was ready to pull out of the Express Agency—but agreed to delay action until April 30. Generally, eastern roads feel they have suffered more than others from express deficits. For one thing, they feel their higher terminal costs entitle them to a greater proportion of express revenues than they now get.

WILLIAM B. JOHNSON

ALFRED L. HAMMELL

Mr. Johnson is no newcomer to head-end traffic problems. He was a member of counsel for the eastern railroads in their successful fight for a retroactive mail settlement from the Post Office Department.

As a member of the PRR's legal department since 1946, he has specialized in Railway Express contracts, regulations and rates.

Mr. Johnson has been a member of the agency's Law Committee for eight years.

Watching Washington *with Walter Taft*

• **JOINT APPROACH** to President Eisenhower is all railroad management wants to discuss at this time with leaders of the five operating brotherhoods. The approach would be for the purpose of asking the President to appoint a commission to study the impact of "featherbedding" on the public welfare.

THE PRESIDENTIAL-COMMISSION IDEA was advanced by AAR President Daniel P. Loomis in his Feb. 10 letter to the "op" chiefs. Their joint reply called for extension of any inquiry "to all phases and facets of the industry." Answering that with a brief note, Mr. Loomis hews to the line of his original proposal.

• **LABOR THREATS** to transportation will be considered at the transport session of the U.S. Chamber of Commerce's annual meeting in Washington next month. The session is scheduled for Apr. 28, and the program arrangers hope to have representatives of the railroads and other carriers on hand to discuss labor problems.

• **$2.59 PER HOUR** has become the average straight-time wage rate for all railroad employees. With officers and their staffs excluded, the average drops to $2.53. These figures reflect the eight-cents-per-hour increase of last Nov. 1. They compare in turn with year-earlier figures of $2.42 and $2.37. The Nov. 1 increase included seven cents under currently-effective working agreements and one cent under escalator clauses.

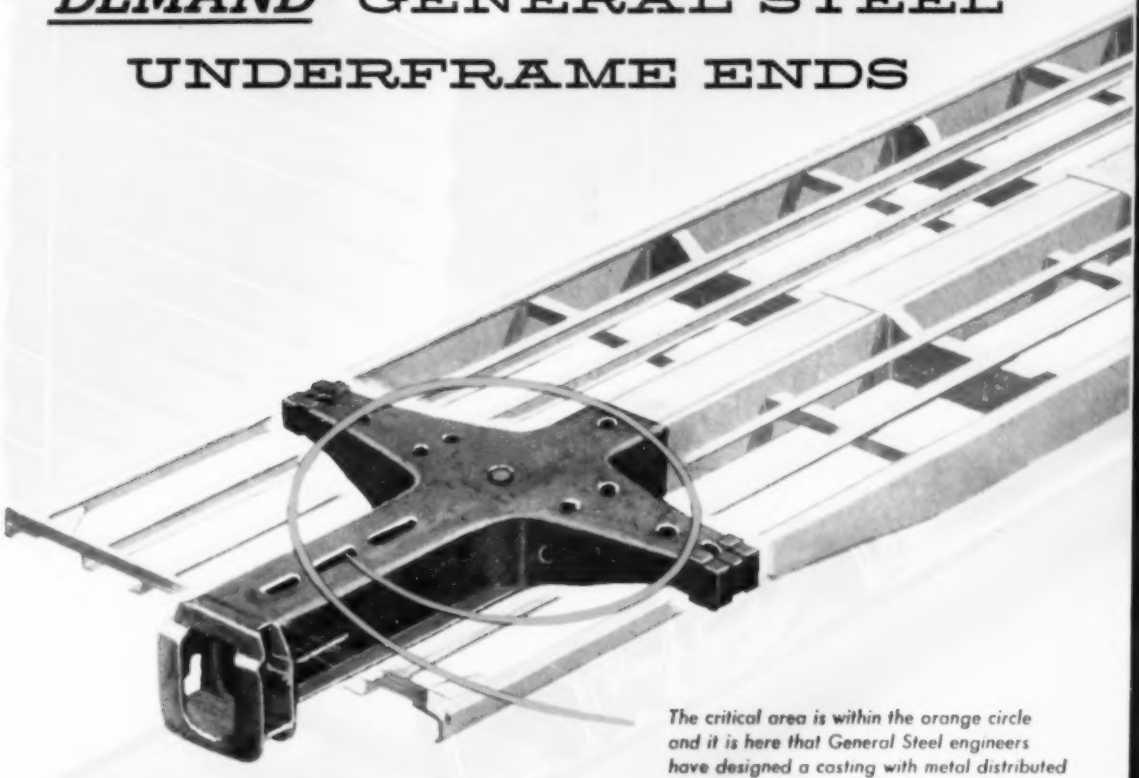
THE ESCALATOR CLAUSES are tied to the Bureau of Labor Statistics' cost-of-living index. Up or down adjustments, which the index may call for, are made every six months. The Mar. 15 index, due about the middle of next month, will determine whether or not there will be a May 1 adjustment.

• **SERVICE-ABANDONMENT PROVISIONS** of the 1958 Transportation Act, as they apply to interstate services, have passed their final court test. The United States Supreme Court last week upheld the three-judge federal court which dismissed New Jersey's complaint against abandonment of the New York Central's Weehawken ferry. Jersey went to court when the ICC failed to suspend, for investigation, the notice-of-abandonment filed by NYC.

• **STOPPING LIQUOR SIX YEARS** in transit for aging seems reasonable to the ICC. The Commission's Division 2 has allowed eastern railroads to offer that service. The general Commission position has been that transit periods beyond one year are *prima facie* unreasonable, but special circumstances justifying longer periods have been recognized. The division found some here—including the desirability of helping railroads meet private-truck competition.

Where railroad progress is cast in steel....

MODERN FREIGHT CAR SERVICE REQUIREMENTS *DEMAND* GENERAL STEEL UNDERFRAME ENDS



The critical area is within the orange circle and it is here that General Steel engineers have designed a casting with metal distributed to the exact point where it is needed to eliminate failures in critical stress areas.

Railroad maintenance costs are high, and revenue is lost unnecessarily due to underframe failures. These failures occur in the underframe ends as a result of stresses created by longer and faster trains, plus the unusually rugged service required in the handling of cars.

General Steel has conducted an extensive cross-country inspection of 5000 freight cars built since 1940 which points out serious failures that could have been avoided by the use of cast steel underframe ends.

Cost-conscious railroad men are eliminating such problems by equipping new and rebuilt box cars, refrigerator cars and other freight equipment with General Steel one-piece, cast steel underframe ends. These ends have increased impact resistance in critical areas, eliminating body bolster failures . . . they resist rust and corrosion, and provide infinitely longer freight car life with practically no upkeep costs.

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MEMBER

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New C & NW coaches feature Adlake windows

Coaches built by Pullman-Standard Car Mfg. Co.

A+ Adlake breather windows

There's a flurry of excitement about Chicago and North Western's 13 new main line bi-level coaches. Passengers are impressed and pleased with the bi-level arrangement, handy luggage racks (by Adlake), stanchions and guard rails (by Adlake) and the view . . . also by Adlake! It's a view that stays crystal-clear in all kinds of weather. The secret? Adlake windows are double-glazed with patented "breather device." May we send full particulars?

The Adams & Westlake Company, Elkhart, Indiana
Sales offices in Chicago, New York and other principal cities.

Rated A-Plus for specialties and equipment in the transportation industry

Canada Builds With Railroads

Railroads continue to be Canada's preferred mode of transportation when economical all-weather facilities are needed for long-distance volume movements. That's why extensive trackage is still being laid there, chiefly to remote mining camps on the northern frontier. The Canadian point of view is that no other means of transportation can so quickly encourage development of the nation's vast natural resources.

By Edmour Germain*

Railroads in Canada are holding their own against the rough competition they get from other forms of transportation. The Canadians do indeed recognize some advantages to be gained from using motor vehicles or airplanes under certain conditions, as, for instance, when only short hauls are required, or when speed is a consideration.

But they are also aware that only railroads have adequate muscle power for the big job of hauling Canada's chief commodities of trade—largely centering around mining—to world markets. In terms of world output, Canada is first in production of asbestos and nickel, second in aluminum and zinc, third in magnesium and titanium, and fourth in copper and lead. All are big tonnage items.

After noting that railroads accounted for three-fifths of total revenue freight ton-miles in 1953, the Royal Commission on Canada's Economic Prospects, in its final report in 1957, predicted, too, a 75 to 80% rise in railroad traffic in Canada over the next 25 years.

Donald Gordon, head of the Canadian National, in a talk before the Empire Club at Toronto last April, likewise testified to the great popularity of railroading in Canada. He noted that the 68 million miles chalked up by CNR freight and passenger trains the year before would be equal to 260 space trips to the moon.

The decision now to stick to railroads for the task of opening up and developing the country's remaining vast mineral and agricultural lands in the North and West means that Canada will continue for a long time to use more railroad transportation per person than any other country in the world.

With a population only a tenth as large as that of the United States, Canada has already fully a fifth as much main line rail mileage as this country.

*Mr. Germain is a New York newspaper writer specializing in business and financial subjects.

The decision was of course made in the face of all the merits that could be claimed for other forms of transportation, notably motor vehicles.

But, in the words of Alvin Hamilton, Canadian minister of northern affairs and national resources, it was recognized that perhaps no other means of transportation could encourage the development of remote regions so quickly as railroads. This does not mean that highways have not been, or will not be, built in the new areas.

In British Columbia, where the John Hart Highway was completed in 1953, however, the Pacific Great Eastern Railway has just completed 325 miles of new track over the same routes, reaching as far north as Fort St. John and Dawson Creek, B. C.

The new line, known as the Peace River extension, now provides—for the first time—the whole Dawson Creek country with a short and direct, and, thus, cheap means of transportation to the Pacific Coast itself.

Ready to haul the grain, cattle and timber as well as petroleum products, coal and other minerals of the area, the new PGE line is the only extensive new trackage laid in recent years in Canada for a primary purpose other than to facilitate mining operations. Like many of the railway mining projects, the PGE Peace River extension

(*Continued on page 44*)

New Canadian Trackage at a Glance

COMPLETED SINCE 1953

LINE	RAILROAD	MILES
Sherridon-Lynn Lake, Man.	CNR	144
Terrace-Kitimat, B.C	CNR	46
Beattyville-Chibougamau, Que.	CNR	161
Sipiwesk-Thompson, Man.	CNR	31
Bartibog-Heath Steele, N.B.	CNR	23
Hillsport-Manitouwadge, Ont.	CNR	27
Struthers-Manitouwadge, Ont.	CPR	40
Havelock-Nephton, Ont.	CPR	17
Sept Iles-Knob Lake, Que.	QNS&L	365
Peace River Extension, B.C.	PGE	325
Squamish-North Vancouver, B.C	PGE	40
Total		1,219

NOW UNDER CONSTRUCTION

St. Felicien-Chibougamau, Que.	CNR	133
Optic Lake-Chisel Lake, Man.	CNR	52
Port Cartier-Lac Jeannine, Que.	Quebec Cartier	193
Total		378

PLANNED

Waters, Alta.-Pine Pt., N.W.T.	.....	400
Thompson-Moak Lake, Man.	Int. Nickel	53
QNS&L MP 224-Wabush Lake, Lab.	Wabash Iron	53
Total		475
Grand Total		2,072

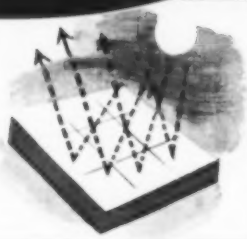
SIX-WAY SAVINGS WITH

Streamlite HAIRINSUL

Leading refrigerator car builders depend on time-tested Streamlite Hairinsul for insulation because of its proven efficiency and its six money-saving features

1. LOW CONDUCTIVITY

Thoroughly washed and sterilized, all-hair heat barrier. Rated conductivity—.25 btu per square foot, per hour per degree F., per inch thick.

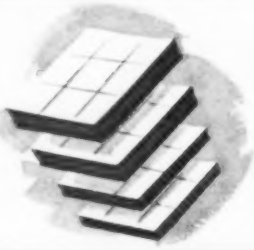


4. EASY TO INSTALL

Blankets may be applied to car wall in one piece, from sill to plate and from one side door to the other. Self-supporting in wall section between fasteners.

2. LIGHT WEIGHT

Advanced processing methods reduce weight of Streamlite Hairinsul by 40%.

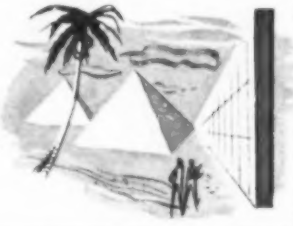


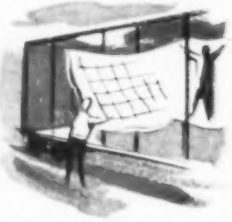
5. COMPLETE RANGE

Streamlite Hairinsul is available ½" to 4" thick, up to 127" wide. Stitched on 5" or 10" centers between two layers of reinforced asphalt laminated paper. Other specified coverings are available.

3. PERMANENT

Does not disintegrate when wet, resists absorption. Will not shake down, is fire-resistant and odorless.





6. HIGH SALVAGE VALUE

The all-hair content does not deteriorate with age; therefore has high salvage value. No other type of insulation offers a comparable saving.

AMERICAN HAIR & FELT COMPANY

Merchandise Mart • Chicago 54, Illinois

SETS THE STANDARD BY WHICH ALL OTHER REFRIGERATOR CAR INSULATIONS ARE JUDGED

RAILROADERS' BEST FRIEND

IT'S "WORKING FRICTION"... the friendly kind that helps cut down lading damage claims and car maintenance costs. You find it in the new MARK 40—the amazing HIGH ABSORPTION, LOW REACTION *friction* draft gear. Developed by Cardwell Westinghouse, the MARK 40 has the capacity to absorb 42,420 foot-pound* impacts. Fits standard 24⅝ inch pockets...has 3¼ inches of travel. These features make the MARK 40 friction gear the answer to today's heavier railroading requirements. No wonder it's the railroaders' best friend!

*The new MARK 40 is the highest capacity *friction* draft gear ever offered for standard pockets.

WESTINGHOUSE

MARK 40

FRICTION DRAFT GEAR

(A.A.R. CERTIFICATE NO. 35)

CARDWELL WESTINGHOUSE COMPANY

332 So. Michigan Ave., Chicago 4, Illinois
Canadian Cardwell Co., Ltd., Montreal 18, Quebec

Weed Killers May Set a Record

Railroad expenditures for chemical control of weeds and brush in 1959 could be the highest in history. Rising wage scales made the old methods of control too costly.

Weeds and brush growing on railroad tracks and rights of way are finding it tougher to stay alive than ever before.

The primary reason for this is two-fold: (1) Marked progress in the technology of vegetation control through use of chemicals; and (2) a steady growth in the mileage of main, branch and yard tracks treated with the chemicals.

The upward trend in the use of weed-control chemicals by railroads has been going on for some time. On road after road the amount of trackage treated annually has multiplied several times within a few years.

Typical experience is that of one large road that sprayed approximately 170,000 gal of chemical on less than 2,000 miles of track in 1954. In 1958, a recession year, the road applied nearly ¾ million gallons of chemical to well over 7,000 miles of track. That doesn't include more than 6,000 miles of track sprayed with over 800,000 gal of aromatic oil.

Figures obtained from the railroads two years ago by the research staff of the AAR's Engineering Division indicated that approximately 270,000 miles of track, out of a total of about 390,000 miles, was being treated with weed-control chemicals each year. At that time it was estimated the roads were spending about $20 million annually for chemical weed control.

Informed sources are convinced the 1959 figures will be even higher. In fact, on the basis of present conditions and prospects, indications are that expenditures for chemical weed and brush control this year will be the highest in history. This depends on the overall business picture.

Past experience indicates that weed-control programs are about the first to be affected when cut-backs in maintenance expenditures become necessary.

When inquiry is made into the reasons for increasing emphasis on chemical weed control an interesting picture comes to light. Basic are the problems created by presence of vegetation on railroad property, particularly the tracks. Weeds growing in the track area are an expensive nuisance. They increase track-maintenance costs by preventing proper drainage and by accelerating decay of crossties. If allowed to grow high enough, they may be mashed down on the rails by passing equipment, resulting in slippage of locomotive drivers. They may interfere with movements of employees working on and about the tracks.

It isn't only the weeds growing in the track area that cause trouble. Tall weeds, brush and trees on the right of way outside the track area are objectionable for various reasons. At grade crossings they obstruct the vision of motorists, as well as railroad employees. Brush and trees along pole lines interfere with maintenance operations and may even grow tall enough to foul the wires. Vegetation under bridges is a constant fire hazard, particularly with timber trestles.

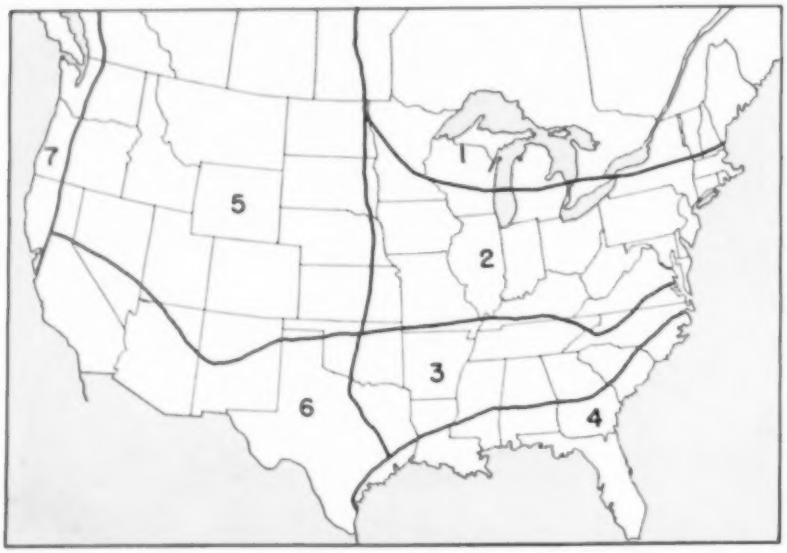
The unsightly appearance of unwanted vegetation is not to be overlooked. Railroad men normally put this factor pretty far down on the list of reasons for vegetation control. But the attitude is not shared by many municipalities and civic groups. Pressure from them has caused many railroads to spend money for weed eradication where it wasn't considered necessary from a practical viewpoint.

Local bodies are not the only governmental groups that insist on control of weeds and brush on railroad property. Various states have laws requiring control of noxious weeds. In some states railroads are required to remove excess brush and trees because of the fire hazard.

All these reasons for control of vegetation on railroad property have existed for many years. Why, then, the increased emphasis on the use of chemical weed killers? The answer lies partly in the higher wage rates that prevail today.

There was a time when weed removal was pretty much a manual operation. Scuffle hoes, shovels, scythes, brush hooks and similar tools were the means commonly used. In those days it was not at all uncommon to see section men pulling weeds by hand.

With rising wage scales these methods became prohibitively costly. This led railroads to adopt mechanical means of weed control on a large scale.



IN EVALUATING THE RESULTS of tests of herbicides, the AAR research staff has divided the U. S. and Canada into the seven regions shown on this map.

These included weed burners, ballast plows, mowers and power-driven brush cutters, all of which are still in use in varying degrees on different roads.

While these methods did provide a measure of relief at lower costs, there was still need for more positive means of control with longer-lasting effects. Railroads then began to look more closely at the advantages of weed control through the use of chemicals. For many years they had been spraying weed-killing chemicals on their tracks. The practice was not universal. A factor that helped to stimulate renewed interest in this direction was the rapid progress in the development of new chemicals.

The use of chemicals for controlling vegetation is rapidly becoming a highly developed science, with chemicals or combinations of chemicals available to fit any conditions. Defined by the manner in which they operate, such chemicals fall into three broad classifications: (1) Contact herbicides, (2) translocated herbicides and (3) soil sterilants.

Contact herbicides kill vegetation primarily by contact with plant tissue. These chemicals are used effectively on annual plants, but must be applied in a volume sufficient to cover all vegetation.

Translocated herbicides enter a plant through the leaves and are translocated through the plant system. This type of chemical is effective on perennial species, says one authority, because of its ability to kill the deep roots and underground stems. As examples of herbicides of this type he cites 2,4-D and 2,4,5-T. They are used for control of brush and broad-leaved species.

A soil sterilant is a herbicide which, when applied to the soil, enters the plant through the roots and is carried through the plant system with water and plant nutrients.

Contact and translocated herbicides are generally applied in liquid form by spray equipment, mostly of the on-track type. In some cases off-track equipment is used to spray the right-of-way. Soil sterilants, on the other hand, are generally furnished in granular form and are applied dry by various types of spreading equipment. However, in some cases these chemicals are mixed with water so that they may be applied as a liquid solution or in the form of a slurry, or they may be combined with solutions of other herbicides.

A more recent development is the introduction of herbicides in pelletized form to facilitate application, such as by air-borne equipment. To a limited extent, railroads have applied herbicides from the air, but this practice is still largely in the experimental stage.

With the chemicals available to do an adequate job of vegetation control, there remained this important question: What chemicals to use under a given set of conditions? When approached from the viewpoint of the country as a whole, the question assumes monumental proportions. There are hundreds of varieties of grass, shrubs and trees growing in all kinds of soils under climatic conditions ranging from semi-tropical to arid. On the other hand there is a bewildering array of herbicides on the market. A recent tabulation listed 59 chemicals in current use for weed-control purposes. The list didn't include herbicides available for brush control.

To find out what chemicals give the best results under each set of conditions there appeared to be only one answer — research. Many railroads, working in cooperation with the manufacturers, attacked the problem individually. They also tackled it collectively, using the facilities and staff of the AAR Central Research Laboratory.

(*Continued on page 22*)

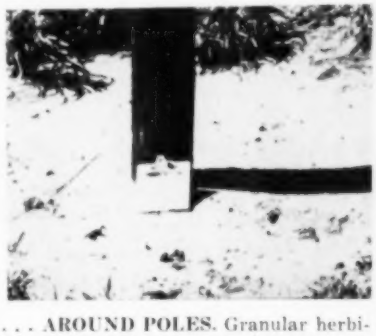
WHAT CHEMICALS CAN DO . . .

. . . **ON MAIN LINES.** A combination of herbicides was used to treat the track section of this line.

. . . **IN YARDS.** Typical control obtained with dry herbicides in Region 2. Yard was treated between tracks only.

. . . **ALONG SPUR TRACKS.** This house track in Region 2 was treated with a granular herbicide.

. . . **UNDER BRIDGES.** Ground under this trestle in Region 5 was treated with a soil sterilant.



. . . **AROUND POLES.** Granular herbicide was applied on ground around this pole in Region 6 in January 1955.

. . . **ON THE RIGHT OF WAY.** Brush control shown here in Region 3. Chemicals were applied under pole line only.

"That's the big boss!... I bet the railroad budgets CHIPMAN weed and brush killers now!"

Chipman chemicals and application service are backed by over 45 years of railroad weed control experience. A broad line of weed, grass and brush killers is available. Each chemical or chemical combination is formulated for specific vegetation problems. Most widely used are these trade-name products:

Atlacide • Atlas "A" • Chlorax • Chlorea • Methoxone-Chlorax
TCA-Chlorax • Methoxone-Chlorea • Chipman Brush Killer

We can solve *your* weed problems with the *right* chemicals and application service. Check with us today!

CHIPMAN
Chemical Company, Inc.

World Leader in Chemical Weed Control Since 1912

RAILROAD DIVISION HEADQUARTERS
608 South Dearborn St., Chicago 5, Ill.

ANOTHER!

Rock Island

uses pressure-treated

GUM DECKING
FOR BOX CARS

to make every decking dollar do more!

Like all railroads, the Rock Island is always interested in cutting costs and increasing the service life of their freight rolling stock. That's why the Rock Island now *uses* Wolmanized® pressure-treated gum decking in new box cars. Furthermore, as older box cars are returned to the shops, Wolmanized protected lumber is used for re-decking.

ADVANTAGES

longer service life
higher impact strength
greater wear resistance

WHY WOLMANIZED GUM DECKING?

The answer, as shown first by tests and then by actual service records, is simple.

1. Wolmanized pressure-treated gum has less mechanical failure.
2. Maintenance due to decay is drastically reduced.
3. Wear resistance of decking is materially greater.
4. Fewer cars are shopped for lumber repair.

And it goes without saying. In-service revenue per-car has climbed!

WRITE for this 12-page booklet. It shows in dollars and cents the advantages of Koppers pressure-treated wood for construction and maintenance of rolling stock. Wood Preserving Division, Koppers Company, Inc., 761 Koppers Building, Pittsburgh 19, Pennsylvania.

KOPPERS

PRESSURE-TREATED WOOD

CROSS AND SWITCH TIES • PILING • BUILDING POLES • NON-COM* FIRE-PROOFED WOOD

PANEL GRADE CROSSINGS KRINKLE-LOK* ANTI-CHECKING IRONS

*Koppers Trademark

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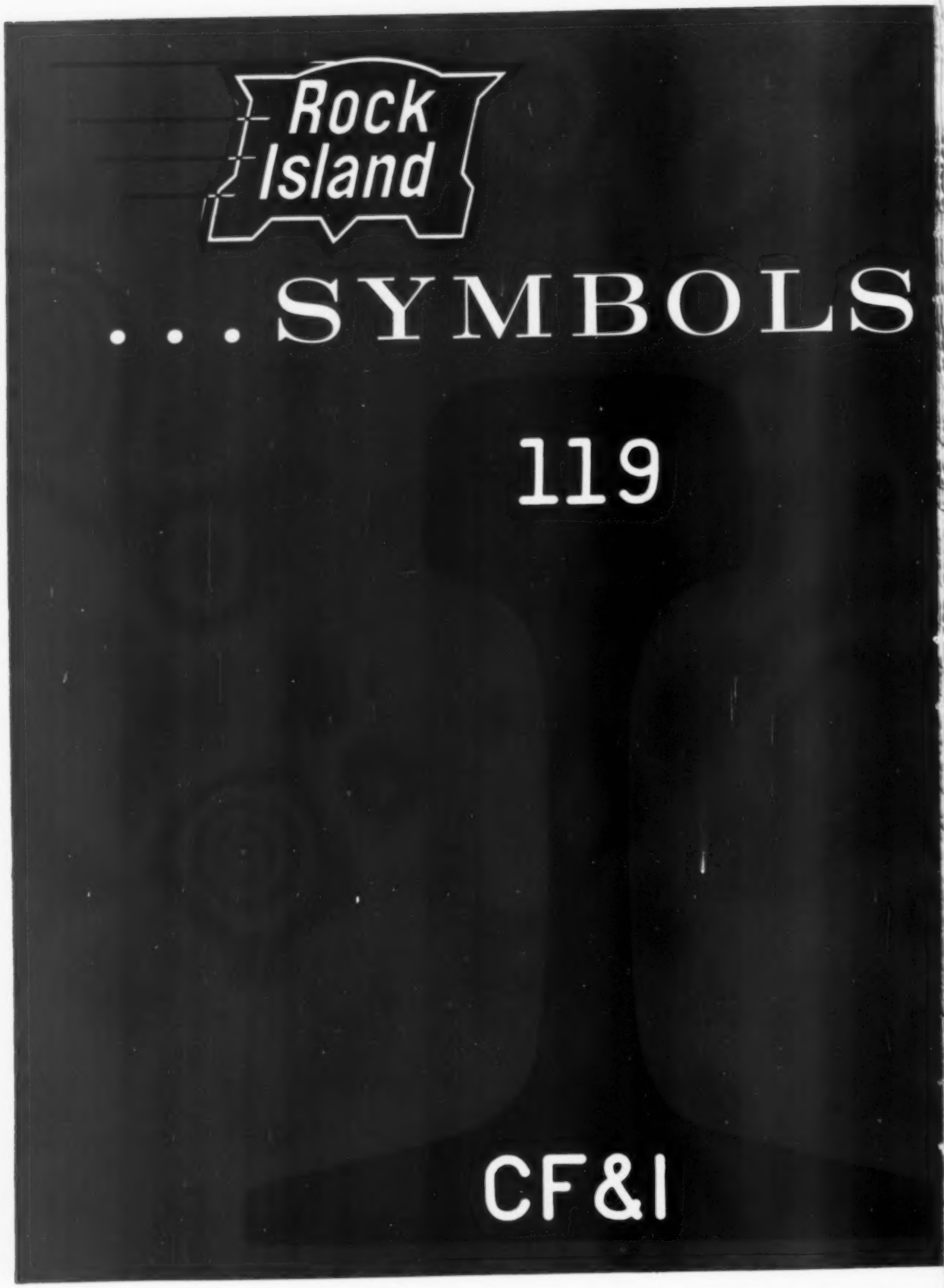

Rock Island
. . . SYMBOLS
119
CF&I

# of courageous advancement

The great emancipator, Abraham Lincoln, as counsel for the Rock Island, won the right of railroads to cross navigable waters. This was a major event in advancing the Rock Island to the shadow of Pikes Peak. Through courageous advancement, thirty-four years later the Rock Island announced "through trains" traveling across Indian Territory and to Colorado.

The Rock Island has retained this spirit to meet the changing national needs by adopting as standard the new CF&I 119 pound rail section. This acceptance is further evidence of the confidence being placed in the new CF&I rail sections by prominent Western Railroads.

The Rock Island's farsighted policy is as significant today as it was in yesteryear when the great fight for the right of railroads was fought by one road for the benefit of all.

THE COLORADO FUEL AND IRON CORPORATION

DENVER, COLORADO

CF&I STEEL

5364

Under the sponsorship of the AREA Committee on Roadway and Track, the first appropriation for research was made in 1951. The work has been continued each year since. Through 1958 it had entailed an expenditure of nearly $100,000.

To supervise this work, a full-time agronomist was added to the AAR research staff. Some of the investigative work was parcelled out to the agricultural departments of several universities. Exhaustive reports giving the results of tests have been made available annually in AREA publications.

Each year, members of the research staff travel about the country inspecting and photographing test sections and plots. So that the results may be reported in terms of their significance to individual railroads, the country has been divided into seven regions.

In reporting on the results of their observations in 1958, C. G. Parris, agronomist on the AAR research staff, and Rockwell Smith, the staff's research engineer roadway, had this to say about the materials used and the results:

"Chemical combinations continue to be widely used for controlling weeds on main and branch lines in all regions. These combinations include chlorate-borate materials, chlorate-borate-substituted urea compounds, Methoxone-chlorate-borate-substituted urea mixtures, chlorate-chloride, Methoxone-chlorax, TCA-chlorate and dalapon-phenoxy compounds. One application of these materials will usually provide good seasonal control when used at the recommended rates in Regions 1, 2, 5 and 6. Two applications are required in higher rainfall areas, Regions 3 and 4, where the long growing season is conducive to vigorous plant growth. Mixtures containing soil-sterilant type materials were more effective in preventing regrowth during the late summer.

"Soil-sterilant type materials were used primarily in yard areas, around bridges, communication poles, signal stands, buildings and at road crossings. Among those most widely used for these purposes were sodium arsenite, Baron, Borate slurry, Concentrated Borascu, Chlorea, Nalco H-174, Reade's M/W, Ureabor and Urox. In some regions these materials have been applied on the same area during successive years with excellent results . . .

"Herbicidal oils were used primarily in the Midwest and Southeast during the 1958 season. One application of oil provided fairly good control in the Midwest. Two and three applications were required in the Southeast to maintain seasonal control. Soil-sterilant materials, such as monuron, have been added to oils with much success in the Midwestern area. The oil provided the initial top kill and the monuron provided residual effects."

It was commented further that "a test in Region 1 using MCP-chlorax-Simazine in a yard covering approximately 14 acres shows promise for controlling vegetation in this area. Results justify further evaluations of this combination."

Eight years of tests have led Messrs. Parris and Smith to the conclusion that "as yet there is no chemical available that will solve all vegetation control problems found on railroads throughout the United States and Canada."

On the other hand, they report that each of the more than 50 materials available for control of weeds and brush on railroads, "when applied at the recommended rates, has been used successfully, depending upon the type of vegetation present, climatic conditions, length of growing season, type of soil and type of control desired."

How important is it for railroads to have a persistent program of vegetation control? Those who have made a careful study of the problem are convinced that this approach is of the utmost importance. "Observations this year," say Messrs. Parris and Smith, "further substantiate the theory that a long-term system-wide weed-control program is superior to one on a year-to-year basis. Although the initial expense involved in such a program may be high, a reduction in cost may be realized over an extended period."

Judging from the reports of the AAR research staff, and from other material available on the subject, it is apparent that chemical herbicides have provided the railroads with a means of keeping under control the growth of vegetation on their properties. Through judicious selection and application of modern herbicides it is possible for them, at reasonable cost, to eliminate weeds from their tracks and areas around bridges, buildings, signals and yards, and to institute a selective control of vegetation on the right of way generally. In this work they may call on the services of a number of firms specializing in the formulation and application of herbicides in the railroad field.

Even so, there are experts on the subject who feel that all railroads are not making the most of the opportunities available to them for the effective and economical control of vegetation through the use of herbicides. Their chances of doing so, it is held, could be enhanced by the introduction, where indicated, of managerial policies designed to make the most effective use of available herbicides.

Hints for Railroad Management on Chemical Weed Control

Observers of railroad practices offer these suggestions:

- Effective weed control these days is a complex problem requiring specialized training and knowledge. For this reason the larger railroads at least should have available on the engineering staff a man who is fully qualified to evaluate the particular control problem and to select the herbicides best suited to it.
- Since persistent, long-range weed-control policies are necessary for the best and most economical results, managements should not be hasty in cutting back their control programs. As one railroad man put it: "It takes a minimum of three years to regain control of weeds if spraying is interrupted for a single year."
- Weed-control budgets should be sufficiently large to do an adequate job. For best results chemicals must be applied in the recommended amounts. "There is danger," said one man, "in appropriating a 500-mile budget to treat 1500 miles of roadbed." Another explained it this way: "In weed spraying you take your choice—you either get mileage or you get results."
- Some herbicides, while effective, act more slowly than others. There is no reason for impatience, therefore, or to condemn the particular herbicide, if vegetation does not turn brown immediately after being sprayed.

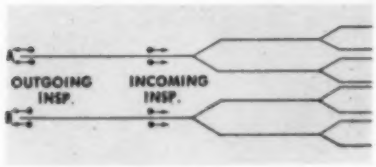
Vol. 2, No. 1

Railway Executive News

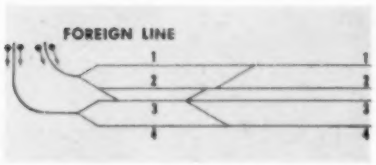
Published by SERVO CORPORATION OF AMERICA, Railroad Products Division

20-26 Jericho Turnpike, New Hyde Park, L. I., N. Y.

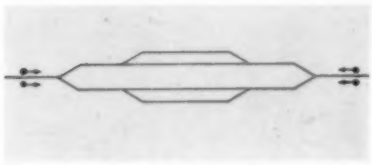
SERVOSAFE® Hot Box Detective* System Application Protects Entire Road



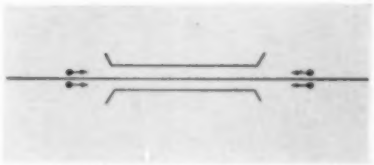
YARDS AND TERMINALS



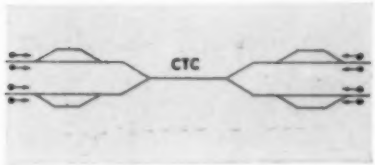
INTERCHANGES WITH INTERLOCKING



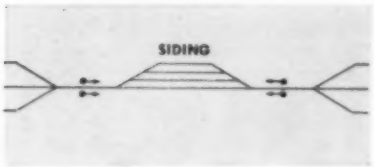
MAIN LINE INSPECTION



MAIN LINE BRIDGES AND TUNNELS



MAIN LINE CTC ENTRANCES



MAIN LINE RIGHT OF WAY

—● *SERVOSAFE Hot Box Detective*

A recent, comprehensive study of the hot box problem revealed that there is no set pattern of incidence. Over a period of time, hot boxes appear on almost every section of track.

Experience has proved that the cheapest and most efficient way of combating these random occurrences lies in the establishment of a SERVOSAFE Hot Box Detective SYSTEM. In such a manner, maximum protection is afforded the road as well as the rolling stock.

On the right of way, SERVOSAFE Detective units placed at intermediate points, bridges and tunnels, CTC entrances, main line sidings, and interchanges offer complete hot box protection of the road and expensive wayside structures. In addition, such installations give assurance that there will be fewer tie-ups to interfere with adherence to schedules.

Another phase of the system application of the SERVOSAFE Hot Box Detective is for yards and terminals. Placement of units at the entrances to such installations provides certain detection of journals requiring service on all incoming cars. Once spotted by the Detective, the affected cars can be marked for servicing. This concept of *selective servicing* is currently being used by a number of maintenance-wise railroads. They report considerable savings of both time and money as a result.

Two additional inspection points located twenty and fifty miles outside of the terminal or yard serve to check journals on all outbound equipment. The distances from the yard are necessary to permit the journals to heat up to normal operating temperatures. Spotting malfunctioning journals at these points permits set-outs to be made before any serious trouble can develop. Often, immediate servicing of cars eliminates the need for expensive and time-consuming shopping and permits the car to proceed on its way almost immediately.

Such utilization of the SERVOSAFE system offers the user protection of his entire road and specifically safeguards each car against the chance of an accident-causing and traffic-disrupting hot box.

THREE DETECTIVES SPOT 1,000 DEFECTIVE BOXES IN NINE-MONTH PERIOD

Three SERVOSAFE Hot Box Detective inspection points, established along the main line and at yard entrances, proved their worth to one railroad.

According to a report just released, for the first nine months of 1958 these three installations detected a total of 1,093 malfunctioning journals. Of these, 1,037 required immediate maintenance.

Though only seven of all journals indicated were flaming, inspection revealed defects ranging from worn linings to wrung-off journals. Some of the conditions uncovered by the SERVOSAFE Detectives were: spread linings; flat, bent, and cocked wedges; wheels out-of-round; waste grabs; glazed lubricator pads; incorrect brass sizes; low oil; scored and cut journals; and dirty boxes.

As a result of this limited *systems* application of the SERVOSAFE Hot Box Detective, this railroad can point to 1958 as the year when major mechanical department problems caused by hot boxes were allayed. Installation of an integrated SERVOSAFE system helped them bring their operating efficiency up and maintenance costs down.

*U.S. and Foreign Patents Applied for

The V-71 "Jimmy" Diesels

NEW FOR THE RAILROAD INDUSTRY

6-, 8-, 12- and 16-cylinder "V" versions of the famous GM Series 71 Diesel

The new V-71 "Jimmy" Diesels are a further illustration of GM Diesel's mighty new power concept—rounding out the All-Purpose Power Line—yet retaining the GM Diesel family relationship and parts interchangeability.

Here are engines that combine every profit-making, cost-saving advantage any Diesel has ever had. Diesels that boast an ingeniously engineered combination of new compactness, lightweight, high efficiency, durability and inexpensive maintenance.

These V-71 "Jimmy" Diesels are available in 6-, 8-, 12-, and 16-cylinder models rated from 112 to 675 h.p. plus 24- and 32-cylinder "Twins" up to 1650 h.p., when turbocharged. They're itching to get to work wherever there's hard work to be made easy.

To see how these new members of the All-Purpose Power Line meet your needs, write GM Diesel, Dept. R-3, Detroit 28, Michigan.

GM DIESEL

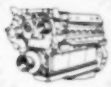
DETROIT DIESEL ENGINE DIVISION,
GENERAL MOTORS, DETROIT 28, MICH.

In Canada: GENERAL MOTORS DIESEL LIMITED, London, Ontario
Parts and Service Worldwide

NEW
"6V-71"
112 to 252 H.P.

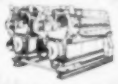
NEW
"8V-71"
150 to 334 H.P.

"6-110"
160 to 335 H.P.

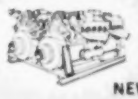


NEW
"12V-71"
224 to 504 H.P.

NEW
"16V-71"
300 to 675 H.P.



NEW
"24V-71" (Twin 12)
448 to 1008 H.P.



NEW
"32V-71" (Twin 16)
600 to 1350 H.P.
(Turbocharged—1650 H.P.)

FROM THIS NEW 71,500-sq-ft eastern regional warehouse at North Bergen, N. J., Alco Products, Inc., speeds shipments of diesel locomotive, stationary and marine diesel-engine parts to customers in the east and overseas.

Alco Speeds Parts Replacement

ONE OF THE 65 employees at the warehouse checks the dimensions of a diesel-engine base before shipment.

PARTS FOR OVERSEAS delivery are packed securely and wrapped for moisture proofing.

CARTONED PISTONS are checked while another warehouseman fills an order from drawer-stored parts.

Eastern U.S. and overseas Alco customers now get faster delivery of locomotive and diesel engine replacement parts and supplies.

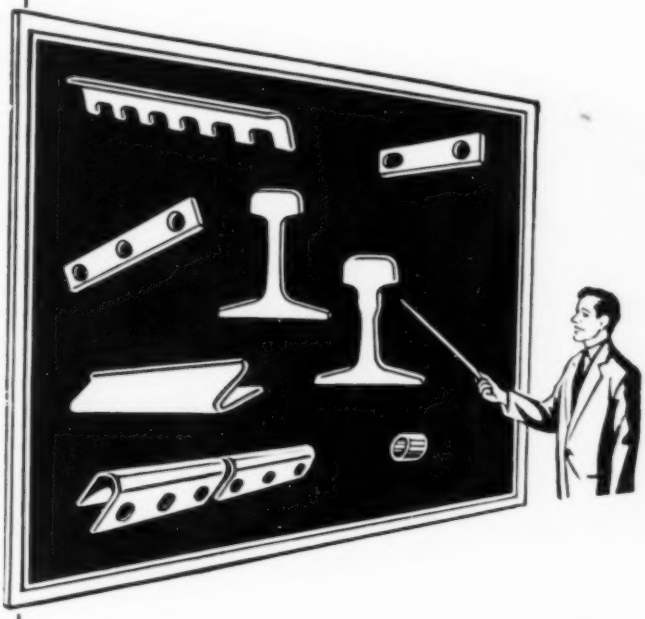
To serve those customers, Alco Products, Inc., recently opened a new 71,500-sq-ft warehouse stocked with over 7,000 items at North Bergen, N. J. Its location near the east's major rail terminals, and its proximity to Hoboken and the port of New York, speed delivery of parts along the Atlantic seaboard and abroad.

The warehouse, which cost over $600,000, consolidates Alco's parts replacement operations formerly at Schenectady, N. Y., and Atlanta, Ga.

Orders received at the warehouse for immediate delivery are shipped the same day. Routine shipments are sent on their way within two days. Overseas orders are packaged in waterproof material and crated ready for shipment as soon as the orders are received. Actual shipment is made after all necessary papers are completed and ship transportation is arranged.

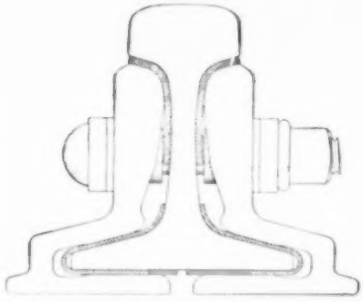
The shipping center obtains rail service by a spur track from the New York Central's nearby Flexi-Van yard. Truck shipments are handled at a three-position loading dock inside the building.

For movement of parts varying from 5-ton engine blocks to cotter pins, the warehouse is equipped with six electric fork lift trucks, including two of the telescoping type to operate in narrow aisles. The trucks serve about 2,000 storage racks and over 5,000 smaller storage bins. Heavy items are stored in open areas around the interior periphery of the building.



Here are the features only RAJO Fibre Renewals can offer . . .

ARMORED INSULATED JOINT



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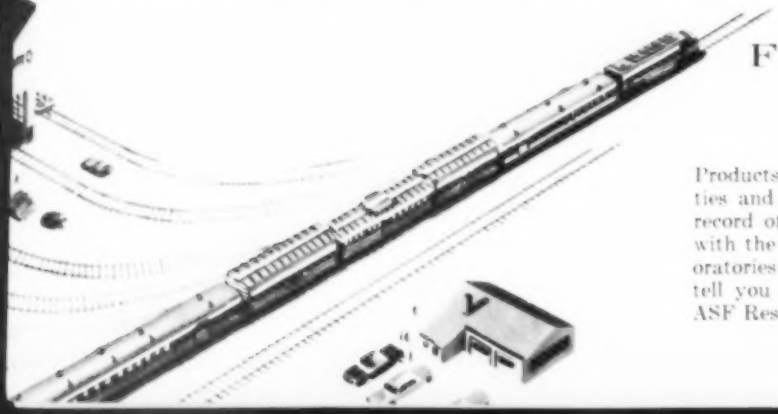

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Log of the American Steel Foundries Test Train

RIGHT-OF-WAY USED	WHERE RUN	NO. OF RUNS	DURATION OF TEST	TOTAL MILEAGE
C.M.ST.P.& P.	Milwaukee, Wis.—Portage, Wis.	56	8/22 to 11/26/40	9,632
M.P.	N. Little Rock, Ark.—Bald Knob, Ark.	72	1/14 to 5/2/41	7,200
N.Y.C.	Englewood, Ill.—Elkhart, Ind.	53	6/15 to 10/28/42	8,480
A.T.& S.F.	Chicago, Ill.—Chillicothe, Ill.	1	4/22/43	260
A.T.& S.F.	Chicago, Ill.—Kansas City, Mo.	1	4/29/43	900
A.T.& S.F.	Chicago, Ill.—Ft. Madison, Iowa	4	5/1 to 5/20/43	1,880
Development of principle of combining proper absorption thru built-in snubbing with long-travel springs and attendant removal of spring planks and spring plates for cost reduction.				
C.& N.W.	Proviso, Ill.—Clinton, Iowa	32	2/28 to 4/21/44	3,968
G.N.	St. Paul, Minn.—Duluth, Minn.	34	5/7 to 9/9/44	10,880
A.T.& S.F.	Chicago, Ill.—Ft. Madison, Iowa	40	10/30 to 12/14/44	8,800
A.T.& S.F.	Chicago, Ill.—Ft. Madison, Iowa	96	3/19 to 12/7/45	21,120
S.P.	Oakland, Calif.—Sacramento, Calif.	35	2/20 to 4/26/46	6,020
A.T.& S.F.	Chicago, Ill.—Chillicothe, Ill.	20	7/8 to 8/20/46	2,340
A.T.& S.F.	Chicago, Ill.—Ft. Madison, Iowa	12	9/2 to 10/1/46	2,640
Proving constant control principle of Ride-Control truck for all speeds up to 90 miles per hour.				
I.C.	Clinton, Ill.—Gilman, Ill.	97	4/25 to 11/6/47	12,028
C.& O.	Grand Rapids, Mich.—Grand Ledge, Mich.	22	1/8 to 2/6/48	2,200
G.M.& O.	Venice, Ill.—Springfield, Ill.	22	6/10 to 7/3/48	1,892
*I.C.	Clinton, Ill.—Gilman, Ill.	78	7/27 to 11/13/48	9,672
Development of Ride-Control Package to modernize older cars and permit riding comparable with new cars.				
***I.C.	Clinton, Ill.—Gilman, Ill.	72	3/29 to 7/1/49	8,928
*I.C.	Clinton, Ill.—Gilman, Ill.	81	7/5 to 10/28/49	10,044
*I.C.	Clinton, Ill.—Gilman, Ill.	56	4/19 to 7/18/50	6,944
I.C.	Clinton, Ill.—Gilman, Ill.	28	7/24 to 8/31/50	3,372
AAR Tests for evaluating modern trucks.				
G.M.& O.	Venice, Ill.—Springfield, Ill.	54	7/30 to 10/19/51	4,752
C.P.	Westmount, Quebec—Foster, Quebec	28	9/25 to 10/14/52	1,890
Cars loaned to Canadian National for truck evaluation.				
**P.R.& S.L.	Atlantic City, N. J.—Hammonton, N. J.	10	6/22 to 6/26/53	458
Demonstration runs of Ride-Control Package at AAR Atlantic City Convention.				
C.B.& Q.	N. St. Louis, Mo.—Old Monroe, Mo.	50	9/14 to 11/18/53	4,100
C.B.& Q.	N. St. Louis, Mo.—Old Monroe, Mo.	54	8/23 to 11/24/54	4,428
Evaluating use of roller bearings with modern truck designs.				
C.& O.	Grand Rapids, Mich.—Grand Ledge, Mich.	42	6/11 to 7/6/56	4,032
Cars loaned to C.& O. for truck and package evaluation.				
C.B.& Q.	N. St. Louis, Mo.—Old Monroe, Mo.	65	9/5 to 12/18/56	5,330
C.B.& Q.	N. St. Louis, Mo.—Old Monroe, Mo.	37	5/19 to 7/31/58	3,034
C.B.& Q.	N. St. Louis, Mo.—Old Monroe, Mo.	28	11/3 to 12/12/58	2,296
Latest ASF development work from which new improvement of important nature can be expected.				
		TOTAL RUNS 1,280		**TOTAL MILEAGE 169,520**

*Conducted by Association of American Railroads.
**A.A.R. Convention.
***Includes Timken runs.

ASF

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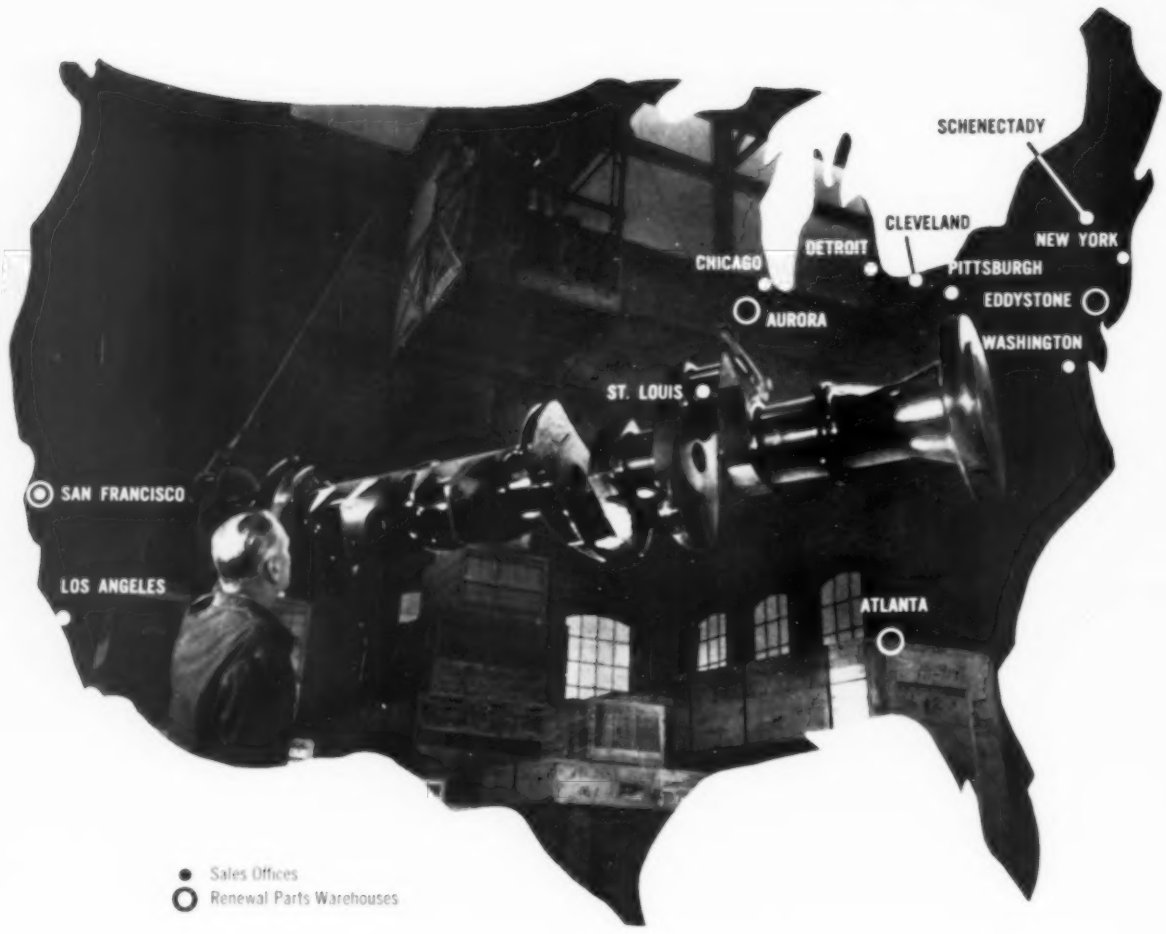

Shown above is a crankshaft being readied for shipment from Eddystone

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AREA Meets at Chicago

WHEN: Monday, March 9, to Wednesday noon. **WHERE:** Sherman Hotel. **AGENDA:** Reports on 142 committee assignments, 18 addresses, numerous luncheons and meetings of committees and other groups.

B. R. MEYERS
President
American Railway Engineering Association

•

For a Cup of Coffee . . .

. . . Plus sweet rolls and fruit juices, drop in to join the Railway Age staff at the Simmons-Boardman "Coffee Bar"—8 to 10 each morning—in Parlor "O" on the mezzanine level of the convention hotel. You'll find your friends there, too!

•

After the Convention Closes . . .

. . . The AAR Engineering Division research staff, headed by G. M. Magee, director of engineering research, will act as hosts to members and others who may wish to visit the AAR Research Center on the campus of Illinois Institute of Technology. Conducted tours will begin at 1:30 pm on Wednesday from the AAR Research Administration building at 3140 S. Federal Street. If desired, individuals will be given an opportunity to see specific facilities, equipment or tests of special interest to them. Transportation by taxicab or public buses.

COMPLETE PROGRAM

MONDAY MORNING, March 9

9:30 to 12:00—Grand Ballroom

- Presidential address—B. R. Meyers
- Reports of Executive Secretary Neal D. Howard and Treasurer A. B. Hillman
- Keynote Address — "Change and Challenge in Railroading," by D.P. Loomis, president, AAR
- Address—"Give the 'High Ball' to Safety," by Paul Jones, director of public information, National Safety Council
- Address—"What I Observed in Europe of Interest to the American Railroads," by Ray McBrian, director of research, D&RGW
- Address—"Summary of Discussions Before Industry Conference on Railway-Highway Problems," by H. H. Hale, assistant to vice president — highway transportation, AAR

MONDAY AFTERNOON

2:00 to 5:00—Grand Ballroom

Reports of Committees

- Highways (2:00)
  - Address—"AASHO Road Test Being Carried on in Illinois" (illustrated), by W. N. Carey, Jr., chief engineer for research, AASHO Road Test
- Contract Forms (2:40)
- Engineering and Valuation Records (2:55)
- Yards and Terminals (3:15)
  - Motion pictures of facilities for handling rail-truck freight equipment
- Economics of Railway Location and Operation (4:05)
  - Address—"Economics of Railway Engineering," by Frank J. Richter
- Waterways and Harbors (4:50)

TUESDAY MORNING

9:00 to 12:00—G. B. Shaw Room

Reports of Committees

- Cooperative Relations with Universities (9:00)
  - Address—"The Engineer's Responsibility to Railroad Management," by R. G. May, vice president, operations and maintenance department, AAR
- Water, Oil and Sanitation Services (9:40)
  - Address—"The Broadening Field for Railway Water Service Engineers," by E. T. Myers
- Wood Bridges and Trestles (10:15)
  - Address—"How Serviceable Are 50-Year-Old Bridge Stringers," by L. P. Drew, assistant research engineer structures, AAR
- Masonry (10:30)
  - Address—"Prestressed Concrete in Western Europe and Russia" (illustrated), by Ben C. Gerwick, Jr., president, Ben C. Gerwick, Inc.
- Impact and Bridge Stresses (11:10)
- Iron and Steel Structures (11:25)

TUESDAY NOON

12:00—Grand Ballroom

Annual luncheon

- Announcement of results of election of officers
  - Address by B. W. Heineman, chairman, Chicago & North Western, on "Railroad Economics Today"

TUESDAY AFTERNOON

2:30 to 5:00—George Bernard Shaw Room

Reports of Committees

- Clearances (2:30)
- Waterproofing (2:40)
- Wood Preservation (2:50)
- Buildings (3:00)
  - Address — "Practical Applications of Infra-Red Ray Heating to Railroad Buildings" (illustrated), by L. R. Morgan, assistant research engineer structures, AAR
- Maintenance of Way Work Equipment (3:25)

[*Please turn page*]

AREA's Complete Program

(*Continued from preceding page*)

Economics of Railway Labor (3:55)
Address—"Report on Work Study—A Tool for Railway Management, as Practiced on British Railways," by H. J. Fast, assistant chief engineer, CNR
Ties (4:35)
Address — "Studies of Anti-Splitting Devices for Ties at the AAR Research Center" (illustrated), by H. M. Sutcliffe, research technician, research staff, AAR

WEDNESDAY MORNING

9:00 to 12:00—Grand Ballroom
Reports of Committees
Special Committee on Continuous Welded Rail (9:00)
Rail (9:15)
Address—"Further Three-Dimensional Photoelastic Studies of Stresses in Rail Head Due to Wheel Contact Pressure" (illustrated), by M. M. Frocht, research professor of mechanics, director of experimental stress analysis, Illinois Institute of Technology
Track (9:55)
Address — "Standardization of Turnouts—What Must Be Done to Achieve It?" by M. J. Zeeman, engineer of track design, Santa Fe
Roadway and Ballast (10:45)
Address—"Soil Engineering Problems on the Quebec North Shore & Labrador" (illustrated), by R.W. Pryer, soils engineer, QNS&L
Closing business
Installation of officers
Adjournment

Railroading  After Hours with Jim Lyne

RE: BALLAST—B. V. Keefer, supervisor of freight claim prevention of the Santa Fe, says they're not running out of cinders out his way (Los Angeles)—only it's volcanic, not coal ashes they're now using. There's a supply on line which ought to last a half-century. They are being mined at two locations—Winona, Ariz., and Pisgah, Cal. and they are being used for ballast, not just on the Coast Lines, but at various places on the Western Lines as well.

NATIONALIZED INDUSTRY—I have been reading a book entitled "Nationalization in Britain," by R. Kelf-Cohen (published by St. Martin's Press, N.Y.). The author, an economist, used to be a socialist, but he isn't any more. He recounts the history of the take-over of various British industries (including railways) by the government and the generally sad experience since. This book will make a textbook for every opponent of government ownership.

If anybody will read the record and then conclude that we ought to follow the British example, I'd say he ought to have his head examined. But there are two ways of getting an industry nationalized. One way is to do it as a deliberate policy, as in Britain. The other is to let an essential service be hounded into bankruptcy by foolish public policy (as has happened in this country to most urban transit). You're just as dead if you take poison inadvertently, as you would be if you did it deliberately.

URBAN DECAY—I've just read an impressive and distressing 90-page book, published by the Committee for Economic Development. It's entitled "The Changing Economic Function of the Central City." The author is Raymond Vernon, an authority on metropolitan deterioration (because the big cities are not progressing any more—instead, they're falling to pieces).

The study concentrates on 13 of the country's largest metropolitan areas—and all of them are suffering in varying degrees from the same disease, viz., a decline of the central city area as compared to the suburbs.

Such information is no longer a secret, but it's useful to have it in the specific figures which this book offers—and it's certainly important for railroad people to know about. What's distressing about the thing is that hardly anybody is frankly pointing out the cause of this cancerous change. That cause, of course, is the explosive tax-exempt public investment in superhighways—with a large part of the cost borne by others than the users. What's the good of all this destruction of existing values anyhow?

MORE ABOUT SYMBOLS—Speaking of railroad symbols, John Barriger (who knows as much railroad lore as anybody) tells me the Frisco's attractive emblem was originally a possum skin on a barn door. He said it was derived from a picture on a calendar issued by the railroad many years ago—and later stylized for repeated use.

Assistant to Safety Superintendent A. M. Hansen of the Santa Fe has written me from Topeka to tell more about the appropriate Franciscan cross which symbolizes his road. The circle in which it is enclosed represents a wheel. The railroad takes its name from the city, of course—which, in full, was originally "La Villa Real de la Santa Fe de San Francisco" (the Royal Town of the Holy Faith of St. Francis). It would be hard to hit upon a more appropriate symbol for a railroad serving the Southwest.

PAYING FOR PENSIONS—To the note I had here (Feb. 16) about W. G. Vollmer's philosophy (relating business and politics to religious principles), New Haven Towerman W. H. Walker, Jr., at Auburndale, Mass., sends along an "Amen." He adds that, as a provider, government ought to limit its wards to the disabled. If Towerman Walker had the $20 bite that government takes out of his weekly pay, he'd be happy and able to provide for his own old age and illness insurance.

With more such citizens as Railroaders Vollmer and Walker, the country wouldn't have half-socialized itself (as it has done in two brief decades). Once you start these handouts for anybody, at what point do they stop? And government has no place to get the money it gives away except from the people—including the people who get its donations.

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Gurley: Railroading Radical?

An historian looking back on the career of Fred G. Gurley might well ask, has he been one of railroading's radicals or one of its conservatives?

Last week, finished with his duties as Santa Fe board chairman, Fred Gurley was in Florida with his wife. He was not, outwardly, prone to speculate on the size and shape of the niche he'd carved for himself in the history of railroading. He had left Chicago shortly after a farewell dinner and, in the main, had taken his observations on the destiny of the railroad business with him.

Fred Gurley, at 70, retired with his health, his convictions, and with the unofficial title of leading U. S. railroader. He left behind a Santa Fe of unprecedented financial and physical construction. And he recognized that the job ahead of the road under his successor, Ernest S. Marsh, is not altogether that which faced him when he became president fifteen years ago.

Santa Fe was hurrying huge volumes of wartime traffic westward when Mr. Gurley succeeded Edward J. Engel as president in August 1944. As never before, the road was being worked to capacity. Then, and in the coming years when the physically depleted property was rebuilt and modernized, the demand was for an expert railroad technician. Santa Fe had him in Fred Gurley.

Of Burlington upbringing, Mr. Gurley knew efficient railroading. Moreover, he had seen the diesel locomotive at its earliest. He had, as a Burlington operating officer, executed the grand feat, a non-stop run of the first "Zephyr" from Denver to Chicago in 1934.

When he came to the Santa Fe as vice president in 1939, his recognition of what the diesel could do came with him. Santa Fe already had dabbled in diesels for switching and fast passenger services. But ahead lay the greatest promise: freight service and ultimately the abandonment of steam. Santa Fe, propelled by the enthusiasm for diesels of Mr. Gurley, got its first freight diesel in 1941.

Diesels were a Godsend for the bad-water, long-haul Santa Fe. But in wartime and post-war, the road had to rebuild itself into the kind of transportation system which could best capitalize on its new locomotives. Moreover, a new era of competition was dawning on the transportation horizon. Efficiency, modern plant and modern thinking had to become inherent in railroading or even the strongest road might ultimately fail.

Santa Fe set out to do the job. Mile after mile of heavy-duty track became stronger, straighter and faster. Searchlight signals blinked on from Kansas to New Mexico, down into Oklahoma and Texas and out in California, as division after division came under CTC. New locomotives and cars rolled out in profusion.

In all of this, Santa Fe benefitted from a heritage of history. Taking civilization westward with it, Santa Fe then reaped bountifully as the West prospered. The dark days of bankruptcy and reorganization had been weathered before the turn of the century. The Western economy mushroomed after the war. There was money in the bank to pay for modern tools. When a bill came in, Santa Fe wrote a check.

So today, Santa Fe's motive-power revolution is far behind it. The last of the major CTC projects is, or soon will be, on the drawing boards. The big push toward modernization of its track maintenance is, Mr. Gurley thinks, about over. The sound now is that of a smoothly running machine. Improvements will come, surely. But they'll come because all machines can be improved, not because it's a case of rebuild or cease to function.

Fred Gurley retires from active participation in railroad management at the end of one era and the beginning of another. He acknowledges this. His own Santa Fe is in superb physical shape. The industry, for which he frequently has been a powerful spokesman and upon which he has exerted a

(*Continued on page 39*)

RAILROAD MAN WITH A CAMERA

FRED G. GURLEY

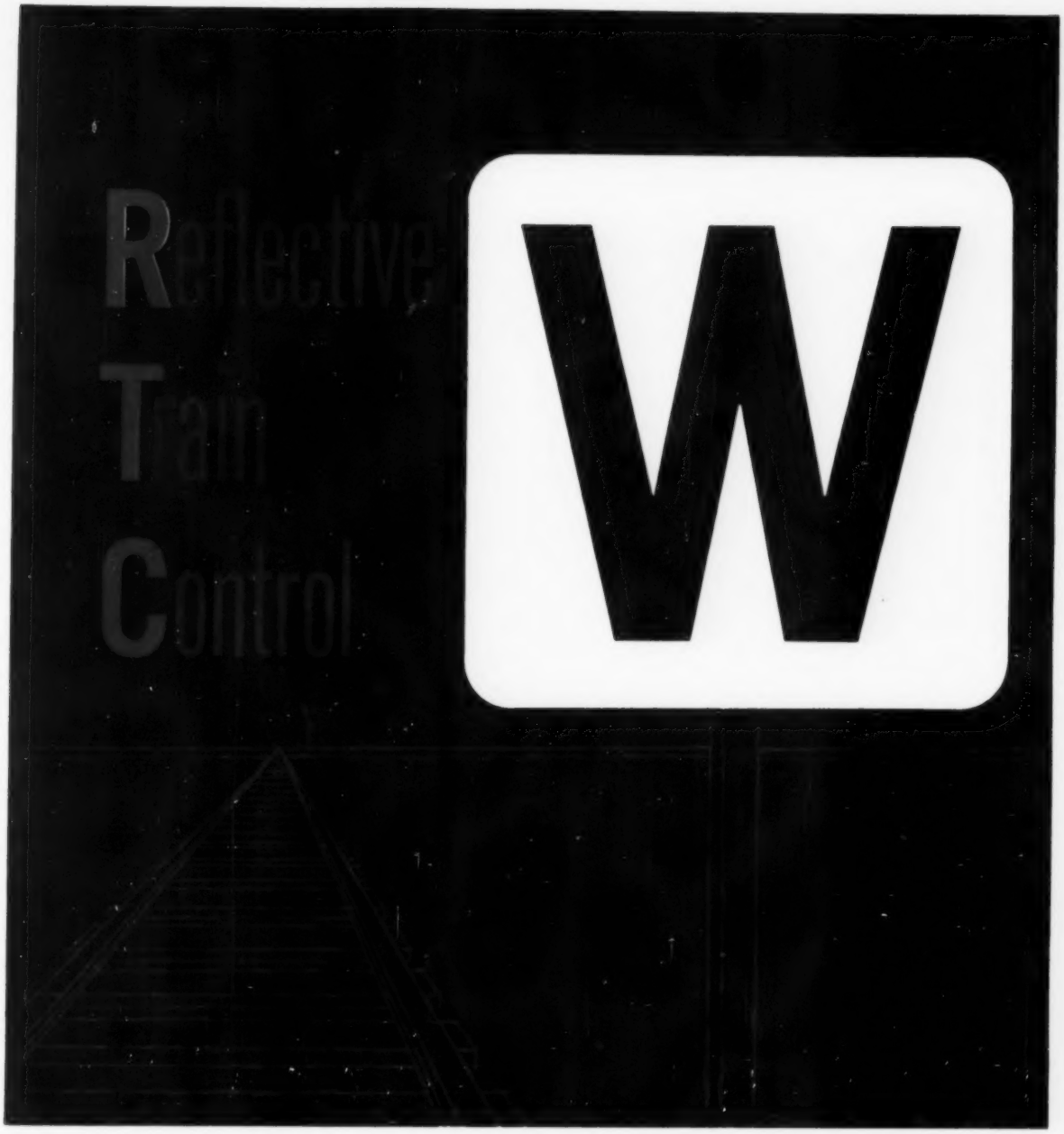
Fred G. Gurley's color camera is almost as well known around the Santa Fe as he is. Passersby along Sunset Road in Winnetka long ago got used to seeing a huge color picture of a Navajo Indian flashed on the screen in the Gurley living room.

Mr. Gurley is a Missourian. He was born in Sedalia in 1889. He started railroading on the Burlington, as a clerk in the superintendent's office at Sheridan, Wyo., in 1906. He was promoted to superintendent, then general superintendent. In 1932 he became assistant to the vice president. He was advanced to assistant vice president in 1936.

On June 1, 1939, Mr. Gurley came to the Santa Fe as what one historian called "vice president in charge of the executive department." He was elected president and chairman of the executive committee Aug. 1, 1944.

Some 22 months ago, Mr. Gurley began laying the foundation for his retirement. He turned the presidency over to Ernest S. Marsh, vice president finance, on May 1, 1957, retaining the position of chairman and chief executive officer. Last May 1, Mr. Marsh was elected chief executive officer. Mr. Gurley remained as chairman until Feb. 28 of this year. He continues on Santa Fe's board.

Mr. Gurley plans to remain in Chicago when he's not traveling. He has an office in the Railway Exchange Building. Just across the hall is another room he uses a lot: the film projection room of Santa Fe's photo department, where he can look at his slides.



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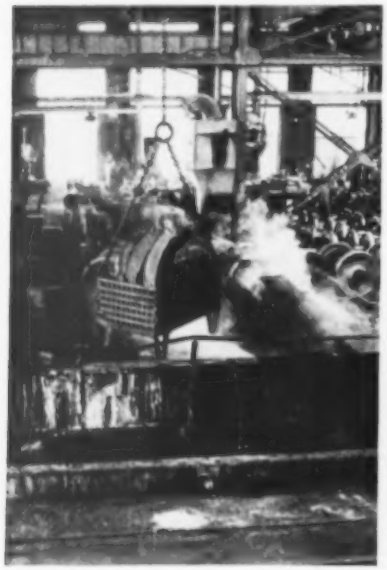

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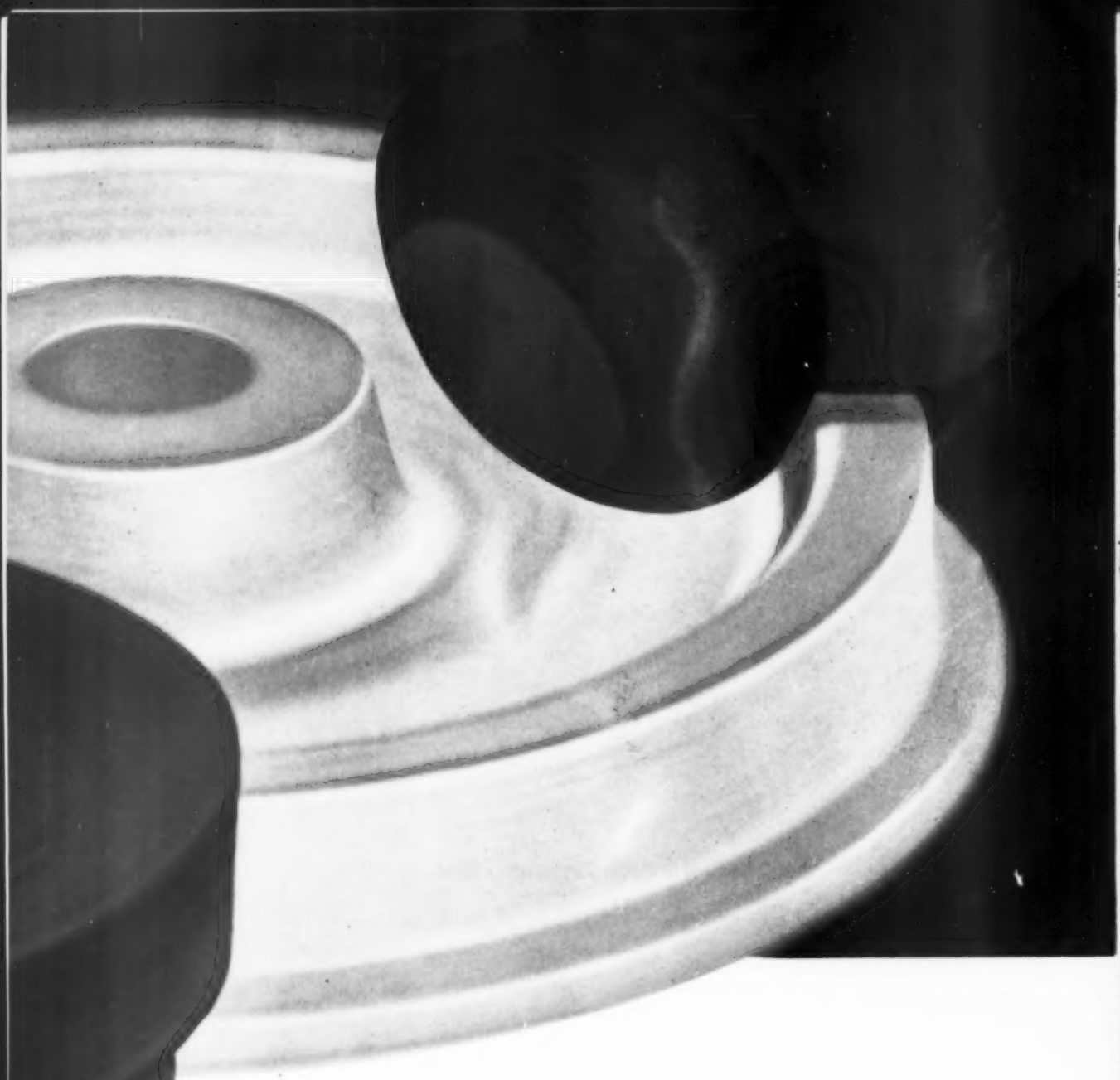

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TRAFFIC CONTROL. Santa Fe is double track or CTC all the way to the Coast. Some 2,300 miles will be under direct dispatcher control by the end of the year.

DIESELS. They came early but not all at once. Never with more new locomotives than it could digest, Santa Fe was still the first major railroad converted to diesel-electric motive power.

PASSENGERS. To the Santa Fe under Mr. Gurley, they were a specialty. Recognition of the market in long-haul coach travel led to high-capacity "Hi-Level El Capitan."

GURLEY: RAILROADING RADICAL? *(Continued from page 34)*

powerful influence, is well along toward modernization—far enough along that the emphasis of management thinking has begun to shift into new areas.

A few days ago in Chicago, Mr. Gurley looked ahead at what's to come: "I think the job ahead primarily is one of obtaining better treatment for the railroads by government in matters of regulation and depreciation, and in obtaining more realistic relations with labor."

Will rails' successes in these fields be as outstanding as they've been during the technological revolution? He wouldn't predict, except to comment, "When you're dealing in technological improvements, you've got things pretty well under control. But in these other fields, you've got to convince somebody."

Mr. Gurley himself has been pretty good at convincing people. His brand has been on countless industry policies. It survives his retirement even on new projects such as the AAR's current campaign against unproductive labor practices. He spoke from a position of power in industry council meetings.

Yet despite attitudes which others in the industry sometimes considered headstrong, Santa Fe under Mr. Gurley often has exhibited symptoms of extreme conservatism.

Wall Street decidedly regards "Atchison" as a conservative company as well as an excellent one. Dividend payments have always been arranged so that there has been ample money to invest in increased efficiency. The policy has been historic with Santa Fe, and it's paid off generously. A share of Atchison common, allowing for splits, now is worth something more than 10 times what it was in 1944. But in operating practices and services, too, the road has moved cautiously.

An early leader though it was, Santa Fe wasn't the pioneer in dieselization. Its program of replacing steam locomotives was orderly, dictated more by operating considerations than by the availability of money to buy diesels. Although Santa Fe and Mr. Gurley stand firm against unproductive labor, the road for years ran its freight diesels with only one cab unit out of respect for the "two cabs, two crews" issue.

With the only completely home-owned route between Chicago and the West Coast, Santa Fe could upset traditional railroading in a minute. It's true, Mr. Gurley did on at least one occasion whack a day off transcontinental schedules without a great deal of industry support. But many observers feel that only in recent months with the advent of third-morning deliveries has Santa Fe begun to use the potential which lies in its physical plant.

Moreover, Santa Fe was an early piggybacker. Yet the growth of this service, like the progress of dieselization, has been less than overwhelming in its speed. Without asking anybody, Mr. Gurley could have started transcontinental piggyback on a grand and certainly profitable scale. Yet again, just recently such a service has been started at the urging of freight forwarders.

Mr. Gurley's operating philosophy might be summed up as this: Santa Fe can do it—and will, when the need is demonstrated. As for his own views as distinct from those of a chief executive, he's known to be sometimes more radical.

Mr. Gurley's continuing anger over the hotbox situation has been such that an associate once speculated on the possibility that he might, in one vast conversion, put roller bearings under every Santa Fe freight car. It's doubtful that he personally takes the dim view of the passenger business with which the industry supposedly is saddled.

His political philosophy of railroading puts him squarely at the head of the western free-enterprisers.

"If this economy can't support privately owned railroads, it can't call itself a private-enterprise type of economy," he declares. Active in politics as he's been, he knows the limitations applied to all so-called free enterprises today. But he believes, still, that the economy can indeed support privately owned railroads—if, among others, railroaders themselves want it to.

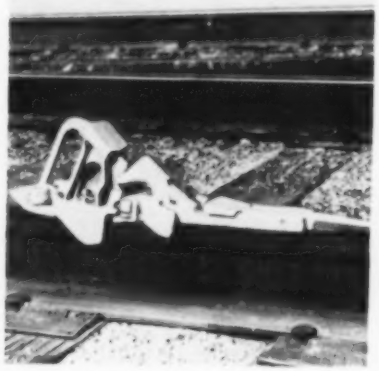
Fred Gurley has been a businessman whose conservatism has helped make Santa Fe a radical railroad (it operates well, makes money, has few complaints). He has inherited the mantle of Ralph Budd: the designation as elder railroad statesman.

And he enters an active retirement with a wistful nostalgia about the railroad business which belies his reluctance to indulge in public reminiscence: "If I were 25 years younger . . ."

NEW PRODUCTS REPORT: What's new

Derrick Car

Two-line power lifts can be accomplished by using the new W64 Derrick Car. The lines are controlled by one man, each line having a load capacity of 1,500 lb. A single-cylinder engine drives a hydraulic power pack. Lifting is accomplished by a hydraulic motor through a speed reducer. Boom angle is changed manually. Since the lines are individually controlled, it is said that a pole or bridge timber can be placed without manual balancing. *Fairmont Railway Motors, Inc., Dept. RA, Fairmont, Minn.*



Track Skate

A new track skate is available that is designed to improve the stopping and handling of cars within retarder yards. Designated the Safety Skate, it weighs 27 lb and is said to be interchangeable on either rail. Individual spring-loaded lugs clamp it to the rail and guide its movement. They are designed to snap free of obstructions permitting the skate to "skid through" frogs without causing derailments. Its tongue lifts as the car wheel rolls upon the skate. *W. T. Cox Company, Dept. RA, 6308 Troost Ave., Kansas City 10, Mo.*

Super Jack-All

Several improvements to the Kershaw Super Jack-All have been announced. The Model 3G-C has been equipped with air brakes and an air horn. A center ram and a turntable also are furnished for turning and setting the machine off the track. A hydraulic air cooler has been installed and the rail dogs are designed to be automatically forced under the rail. An umbrella also is furnished. *Kershaw Manufacturing Company, Dept. RA, 2205 West Fairview Avenue, Montgomery 3, Alabama.*

New Tractor Series

Heavier tractors, with either direct drive or torque converter, have been introduced under the designation of Series H D8 to replace the previous D8 units. The new models are longer, higher, 4,000 lb heavier and have a wider gage than the older machines. An outstanding features of the new models is that all track rollers, track-carrier rollers and idlers are of metal-to-metal sealing surfaces for lifetime lubrication. *Caterpillar Tractor Co., Dept. RA, Peoria, Ill.*

Spike Setter

The replacement of the air compressor with one of the rotary type, capable of producing 20 cfm at 120 psi, is said to enable the Racor Dual Spike Setter to operate for long periods of time without loss of efficiency. Other improvements also were made which are said to enable the machine to set spikes straighter and deeper than the earlier models. *American Brake Shoe Company, Railroad Products Division, Dept. RA, 155 No. Wacker Drive, Chicago 6, Ill.*

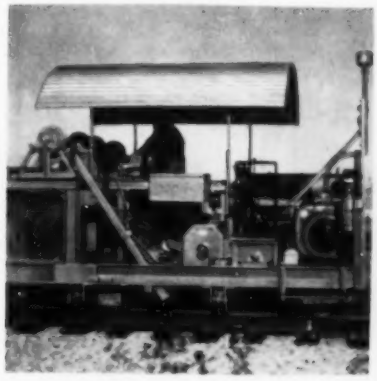
Screws and Bolts

A new line of screws and bolts preassembled with helical spring lock washers is being offered for railroad use. Known as Eaton-Reliance Springtites, the fasteners are available in screw sizes from No. 4 through 12, in diameters up to ⅜ in., and in any practical length. The use of Springtites, it is claimed, eliminates the time-consuming task of putting lock washers on screws or bolts. *Reliance Division, Eaton Manufacturing Company, Dept. RA, Massillon, Ohio.*

in engineering and maintenance of way

Equipment Car

The Wheel-Master is a new lightweight track equipment car that has its own integral take-off wheels. It weighs 200 lb and is said to have a load capacity of 1,500 lb. In addition to track wheels it has pneumatic tires at one end that are claimed to permit one man to remove it from the track. This is done by sliding the machine being carried to this end. The other end is then picked up by the handles and the car wheeled off the track. *Teleweld, Inc., Dept. RA 11535 W. Franklin Ave., Franklin Park, Ill.*



Gang Tamper

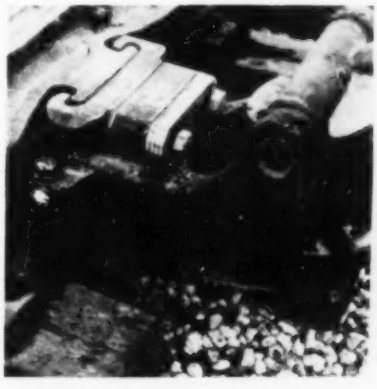
A new mechanism, called the Double Vibrator, is used in the 1959 Model of the Nordberg Gang Tamper. Utilizing two counter-rotating eccentric weights, it is claimed to increase the vertical vibration and impact of the tampers while eliminating horizontal vibration. Increased tamping speed is said to result from this action and by the use of larger pumps to speed head raising. Other improvements are more power, an operator's seat and a two-piece tamping bar. *Nordberg Mfg. Co., Dept. RA, Milwaukee, Wis.*

Tamping Power Jack

Major improvements are said to have been made in the new Nordberg Model C Tamping Power Jack. One is the use of a new mechanism, called the Double Vibrator. It employs two counter-rotating eccentric weights that are claimed to increase the impact and vertical vibration of the tampers while eliminating horizontal vibration and reducing machine vibration. Other improvements are a two-piece tamping bar with a new back-up spring and a simplified transmission and brake assembly. *Nordberg Mfg. Co., Dept. RA, Milwaukee, Wis.*

Improved Tie Replacer

Several improvements to the Kershaw Tie Replacer have been reported. One is the utilization of a new cable drum to prevent backlash of the hauling cable. Another is the furnishing of a center ram and a turntable to the Model 1HS-B for assisting in the turning of the machine and for setting it off the track. Also, an emergency hydraulic system has been incorporated in the machine. *Kershaw Manufacturing Company, Dept. RA, 2205 West Fairview Avenue, Montgomery 3, Alabama.*



Car Retarder

Longer life is promised by the manufacturer for the Model 32 Electropneumatic car retarder than for the previous Model 31. This is said to be the result of a more rugged design. The major improvement on Model 32 is a new hold-down arrangement which provides a greater distance between the lugs on the underside of the beams engaging the levers. The distance is twice that on Model 31. *Union Switch & Signal, Division of Westinghouse Air Brake Co., Dept. RA, Swissvale, Pa.*

Utility Pre-Fab Buildings

Small prefabricated metal buildings are available to meet the need for many enclosure problems. Designated Union Style HM, these are available in widths of 6 ft 6 in. or 8 ft 6 in. The 6-ft 6 in. widths are in standard lengths of 5 ft 8 in., 8 ft 4 in., and 12 ft. Standard length for the 8-ft 6-in. width is 12 ft. All have an inside clear height of 7 ft 5⅝ in. *Union Switch & Signal, Division of Westinghouse Air Brake Co., Dept. RA, Swissvale, Pa.*

Continued on following page ►

MORE NEW PRODUCTS

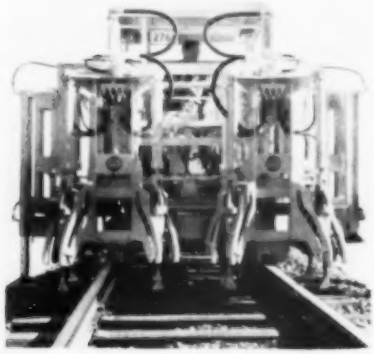
(Continued from preceding page)

Improved Tampers

Improvements to the McWilliams line of tampers have been announced. The Spot Tamper is now equipped with a special heavy-duty gasoline or diesel engine. Mechanical stops for the prevention of cylinder damage and an improved pump drive and piping arrangement are said to reduce maintenance costs on the machines.

The 1959 model of the Production Tamper is stated to be a more compact unit with increased production. New heavy-duty tamping guns, improved piping and hose arrangements and new-style connecting rods are said to increase its production by 20%, also resulting in reduced maintenance. The operator now is located in the center of the machine to increase his visibility. The entire machine has been placed under one roof and curtains have been added as standard equipment.

The Jack Tamper can now be equipped, as specified by the customer, with the heavy-duty tamping guns either inboard or outboard the rail. The present machines are also said to be designed for use with any raising or sighting device. *Railway Maintenance Corporation, Dept. RA, Box 1888, Pittsburgh 30, Pa.*



Versatile Tie Tamper

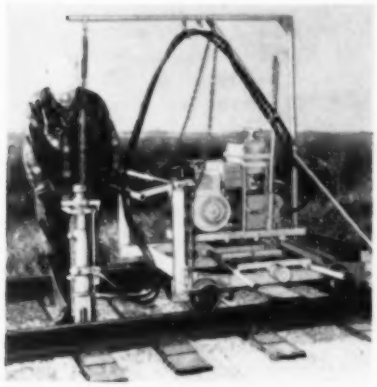
A new McWilliams 8-tool tamper is a machine of intermediate size that was designed to serve as a production tamper, a spot tamper and a jack tamper. It is propelled by a hydraulic motor through a three-speed transmission and is equipped with hydraulic rail clamps and jacks, a cross level and air-powered tamping guns.

When used as a production tamper the machine tamps under the rail-bearing area of the ties, each of the eight tools tamping in two positions. As a tamper of this type the new unit is said

to be particularly suitable for smaller railroads where the cost of full-scale production tampers might not be justified.

Because of its split-head design, the machine may be used as a spot tamper. When so used, it is said to be an efficient machine for tamping joints, low spots and switches, and in yard and terminal work.

Use of rail clamps and integral hydraulic jacks allows jack-tamper operation for out-of-face raises, and finish tamping the ties at jacking points. It can then go back and finish tamping the remaining ties as a production tamper. *Railway Maintenance Corporation, Dept. RA, Box 1888, Pittsburgh 30, Pa.*



Spike Puller Carriage

A new lightweight carriage is available for use with the Nordberg hydraulic spike puller. It consists of four wheels, an all-aluminum frame, a detachable ramp for loading the machine and an overhead swinging boom for suspending the hydraulic hoses and the gun. Spring-held brakes are set or released by exerting pressure on the pushing handle. It is claimed that one man can easily place the carriage on the track, or remove it. To use on the job, the standard hydraulic spike puller is wheeled up the ramp and the gun and hoses suspended from the overhead boom by means of a chain and spring arrangement. With its weight so supported the gun can be swung into position over the spikes adjacent to either rail. The carriage was developed, it is said, to increase the efficiency of tie-renewal gangs on out-of-face jobs. By using the improved BHP spike puller with the new carriage, high-speed spike pulling is claimed to be possible with less operator fatigue. In a recent test it is stated that 360 spikes, four in each tie, were pulled in 30 min. *Nordberg Manufacturing Company, Dept. RA, Milwaukee 1, Wis.*

RUGGED TERRAIN typifies northern Canadian frontier.

CANADA BUILDS (*Continued from page 13*)

handles passenger traffic, too.

PGE construction also included a 40-mile southerly extension, from its previously isolated terminal at Squamish, B. C., to North Vancouver, where it connects directly with main transcontinental lines of the Canadian National and Canadian Pacific.

In the Chibougamau area of northern Quebec also, a new 133-mile line of 85-lb rail is now being built by the CNR. This parallels a highway constructed northwesterly from St. Felicien more than 10 years ago, originally to encourage commercial exploitation of the mineral deposits, especially copper, known to exist in that general region.

Until the CNR two years ago completed another extension of 161 miles into the Chibougamau area from Beattyville, copper ore concentrates were shipped by truck from there over the St. Felicien highway to the Noranda smelter for refining.

As is so often the case in considering additions to its lines, the CNR agreed to the Beattyville extension only after obtaining guarantees from the copper mining companies already operating in the area to ship an average of 325 tons of ore concentrates over the spur daily for a total of six years, and from paper interests to move 30,000 cords of pulpwood per year over the same period.

In two instances, both in northern Manitoba, temporary winter highways, making use of tractor-drawn sled-trains over snow and the frozen rivers and lakes, were employed to move supplies to new mining areas on the assurance that rail lines were to be built, as it happened, over the same routes to those destinations. Once in, the railroads of course took over the job of bringing in the necessary construction materials for the mining projects.

Running out of zinc and copper ores, Sherritt Gordon Mines, Ltd., had to shut down its operations at Sherridon in 1951. Employing the sleds, however, the company moved the entire community of Sherridon, houses and all, during the winter of 1952-1953 to a new nickel-copper ore discovery 144 miles to the north, in the vicinity of Lynn Lake, to which the CNR immediately extended its tracks.

Likewise, the International Nickel Co. of Canada made wide use of sled-trains over the winter snows on muskeg to speed up the initial development of a big new nickel deposit in the Mystery Lake-Moak Lake region. It was in the fall of 1957 that the CNR completed a 31-mile spur line from Sipiwesk on its Hudson Bay line to the new town of Thompson, site of the first mine to be opened in this area.

INCO itself plans to construct 22 miles of track as an extension of the CNR's Thompson spur when it is ready to open a second mine on its extensive property there. For the present, a road runs along the route over which the tracks are to be laid. The first mine is expected to get into production in 1961.

Numerous other spur lines of relatively short length are included in the new trackage of the Canadian railways. There is the 46-mile spur which the CNR built from Terrace on its Prince Rupert line to the new aluminum reduction facilities of the Aluminium Co. of Canada at Kitimat, B. C.

There are also the two spurs, one of 40 miles constructed by the Canadian Pacific and another of 27 miles built by the CNR, both to the copper mining camp of Manitouwadge, north of Lake Superior in the Ontario northwest, all completed in 1955.

CPR the year before also constructed a 17-mile spur in Ontario from Havelock into the mine of American Nepheline Ltd. at Nephton. Rail laying on this spur was carried out with a high percentage of mechanized equipment, including a device which allowed a self-propelled diesel crane putting down rails to operate over the track as soon as laid and before spiked to the ties.

CNR only last year completed a new 23-mile spur, extending from Bartibog on the Montreal-St. John-Halifax line to the rich lead-zinc-copper deposit of Heath Steele in New Brunswick.

Under construction now is another CNR spur of 52 miles from the Cranberry Portage - Sherridon - Lyon Lake line to a development of the Hudson Bay Mining & Smelting Co. at Chisel Lake in Manitoba.

Close to one-third of all the new Canadian trackage—completed, under construction or planned—is designed to tap the truly vast iron ore resources of Quebec-Labrador.

The first of the big railway projects into this region was the 365-mile Quebec North Shore & Labrador line northward from Sept Iles on the St. Lawrence River to Knob Lake (Schefferville) at the Quebec-Labrador border, placed in operation in 1954.

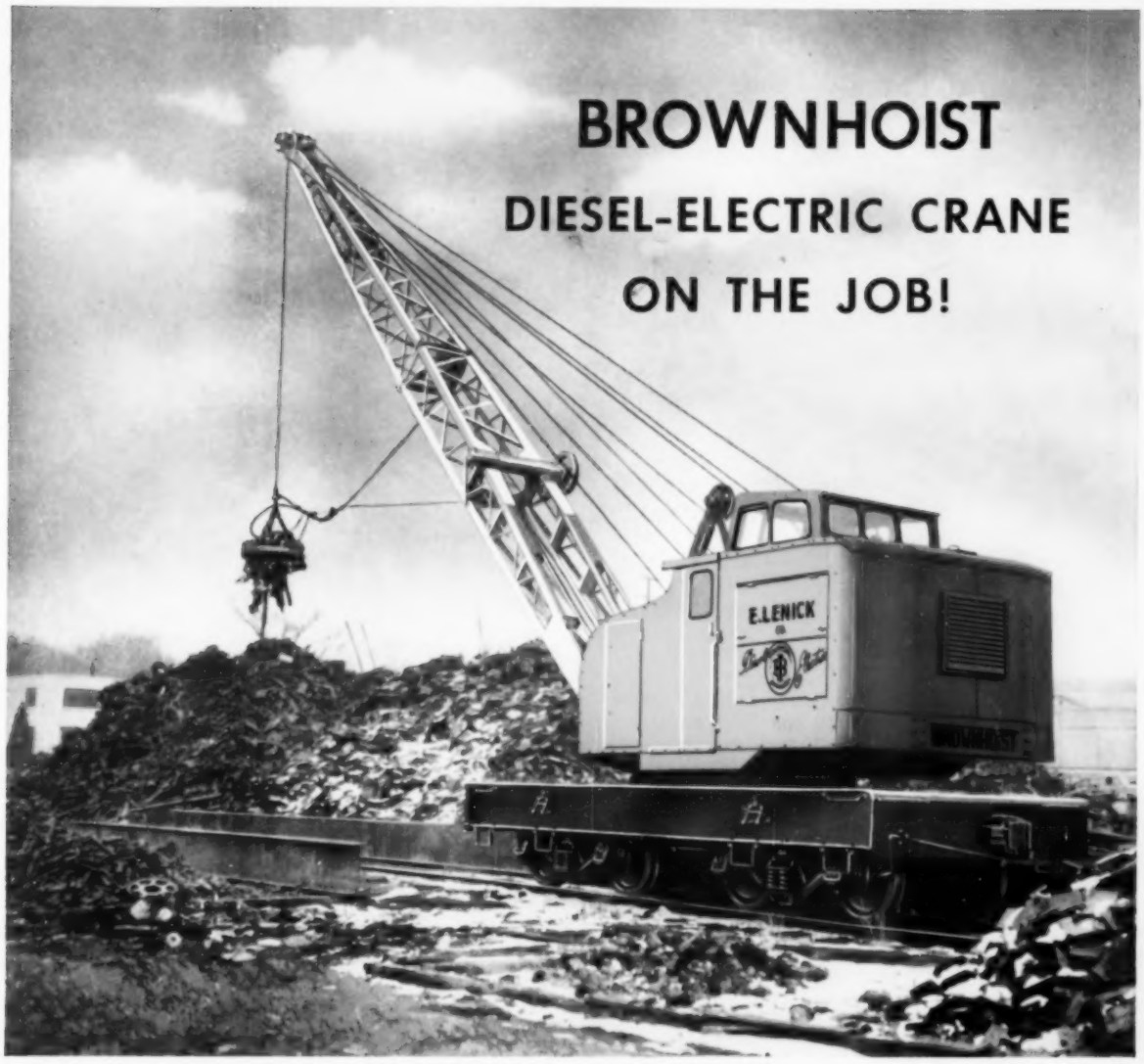
Quebec Cartier, U. S. Steel subsidiary, only last summer let out contracts for construction of another railroad of 193 miles from Port Cartier, not far from Sept Iles, to tap the iron ore deposits in the Lac Jeannine area near Mount Wright and Mount Reed in northern Quebec.

Wabush Iron Co.—another syndicate with Pickands Mather, Youngstown Sheet & Tube, Steel Co. of Canada, Interlake Iron and Canadian-Javelin as stockholders—has also just announced plans to build a 42-mile rail line into the Wabush Lake area of Labrador as a spur of the Quebec Labrador main line. Wabush, it is also reported, contemplates construction of another 11-mile spur at Sept Iles to ore-loading docks on a bay of the St. Lawrence at that point.

Under serious discussion for a long time has been a projected first rail line into the North West Territories.

The talk is that the line, which would probably extend from the present railhead of the Northern Alberta Railway at Waterways, Alta., could be a joint venture of the CNR and CPR.

Easily another 2,000 miles of new trackage are involved in the proposed rail lines which have been recommended for Canada—one northward from Dawson Creek or Fort St. John to Yukon and Alaska, another westward from Lynn Lake to Lake Athabasca on the north Alberta-Saskatchewan border and on to Stewart, B. C., at the U. S. border at the southern end of the Alaskan Panhandle, and still another eastward along the north shore of the St. Lawrence.



211

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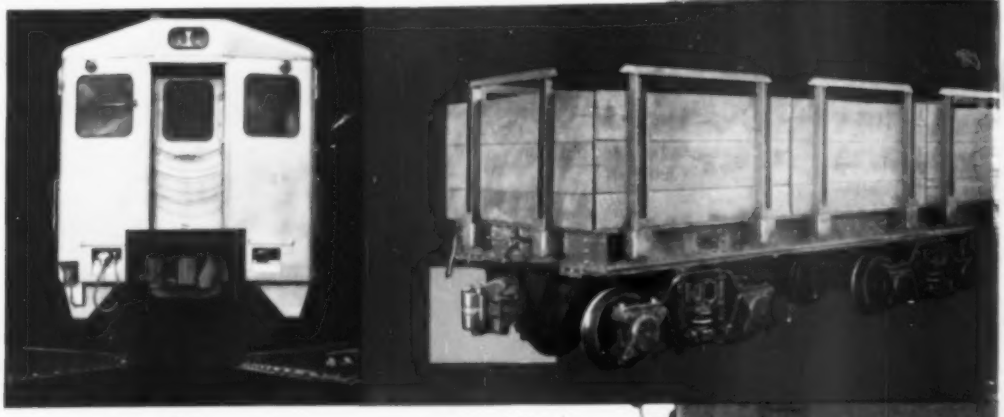

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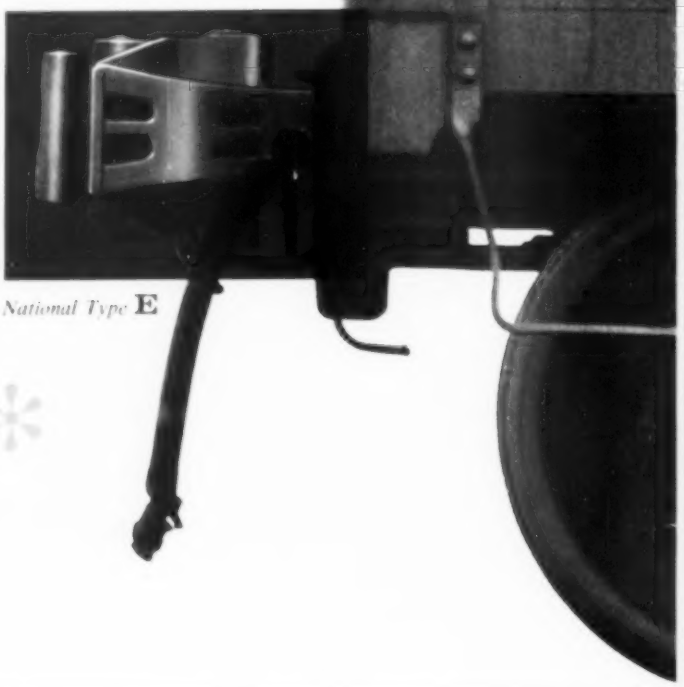
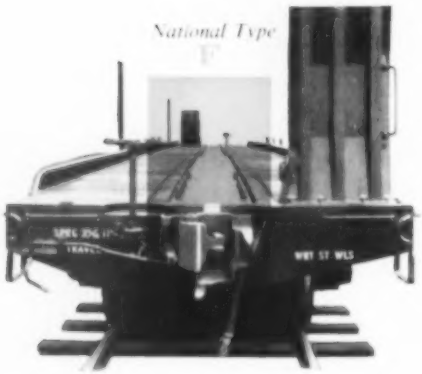


National Type **E**



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MARKET OUTLOOK *at a glance*

Carloadings Slip 1.3% Below Previous Week's

Loadings of revenue freight in the week ended Feb. 28 totaled 575,583 cars, the Association of American Railroads announced on Mar. 5. This was a decrease of 7,598 cars, or 1.3%, compared with the previous week; an increase of 24,391 cars, or 4.4%, compared with the corresponding week last year; and a decrease of 128,400 cars, or 18.2%, compared with the equivalent 1957 week.

Loadings of revenue freight for the week ended Feb. 21 totaled 583,181 cars; the summary, compiled by the Car Service Division, AAR, follows:

REVENUE FREIGHT CAR LOADINGS

For the week ended Saturday, Feb. 21

District	1959	1958	1957
Eastern	91,803	76,986	108,652
Allegheny	104,194	78,714	119,577
Pocahontas	49,808	38,635	59,407
Southern	115,859	98,137	122,782
Northwestern	62,810	59,901	64,475
Central Western	111,752	96,687	105,189
Southwestern	46,955	45,859	46,548
Total Western Districts	221,517	202,447	216,212
Total All Roads	583,181	494,919	626,630
Commodities:			
Grain and grain products	54,887	48,094	46,569
Livestock	3,947	4,237	4,541
Coal	110,086	98,103	130,238
Coke	9,880	6,960	13,521
Forest Products	37,762	32,174	37,514
Ore	16,101	12,912	18,960
Merchandise l.c.l.	43,391	41,462	49,061
Miscellaneous	307,127	250,977	326,226
Feb. 21	583,181	494,919	626,630
Feb. 14	567,134	533,186	675,966
Feb. 7	565,397	532,396	665,251
Jan. 31	582,636	550,532	647,972
Jan. 24	555,547	551,088	665,745
Cumulative total, 8 weeks	4,457,938	4,277,098	5,180,800

PIGGYBACK CARLOADINGS.—piggyback loadings for the week ended Feb. 21 totaled 6,823 cars, compared with 4,240 for the corresponding 1958 week. Loadings for 1959 up to Feb. 21 totaled 51,612 cars, compared with 34,581 for the corresponding period of 1958.

IN CANADA—Carloadings for the seven-day period ended Feb. 21 totaled 65,784 cars, compared with 65,695 cars for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
Feb. 21, 1959	65,784	28,816
Feb. 21, 1958	63,392	26,304
Cumulative Totals:		
Feb. 21, 1959	478,006	197,918
Feb. 21, 1958	484,909	211,569

New Equipment

► *Last Week's Orders*—Orders for new equipment costing approximately $80,000,000 were reported to Railway Age in the past seven days. The breakdown:

FREIGHT-TRAIN CARS

► *PRR Acquiring 4,000 More Cars.*—Pennsylvania has ordered 2,000 70-ton hoppers from ACF Industries, and is acquiring an additional 2,000 through a leasing arrangement. Out of the total 4,000-car order, ACF will build 2,000 cars at Berwick, Pa., and 2,000 at Huntington, W. Va. PRR earlier placed orders for 11,500 cars of all types to be built at its own shops at Altoona, Pa.

► *Soo Line.*—Ordered 25 70-ton, 3,219-cu-ft covered hoppers from Pullman-Standard and 25 70-ton, 2,006-cu-ft covered hoppers from ACF Industries. Delivery: this month.

► *Union Pacific.*—Ordered 1,400 new freight cars costing over $17,000,000. All will be equipped with roller bearings for high-speed service. Included are 800 50-ft "plug-door" box cars and 200 50-ft insulated box cars from UP's Omaha shops; 300 70-ton, 2,100-cu-ft covered hoppers (150 from ACF Industries and 150 Pullman-Standard); and 100 70-ton, 3,500-cu-ft covered hoppers from General American. The latter will be equipped with Dry-Flo air unloading equipment for handling light bulk materials and commodities in pellet form. General Steel Castings will furnish complete underframes for 800 of the box cars. The underframes will incorporate that company's cast steel underframe ends. Delivery: third and fourth quarters.

LOCOMOTIVES

► *Canadian National.*—Ordered 140 diesel-electric locomotives at a cost of almost $25,000,000. Montreal Locomotive Works will build 50 1,800-hp road switchers and 26 1,000-hp yard switchers. General Motors Diesel Limited will build 24 1,750-hp road switchers, 38 1,200-hp road switchers and 2 1,200-hp yard switchers. Delivery will be completed this year.

► *Cedar Rapids & Iowa City.*—Ordered one SW-900 diesel-electric switching unit from Electro-Motive Division of General Motors at an approximate cost of $116,000. Delivery is scheduled for August.

► *Delaware & Hudson.*—Is installing "dead-man" controls on 22 diesel locomotives as part of a $68,051 improvement program.

► *Reading.*—Will spend $1,430,800 for 14 diesel-electric locomotives to be delivered during the first half of the year. The locomotives will be remanufactured by General Motors' Electro-Motive Division at LaGrange, Ill., their horsepower increased from 1,000 to 1,200 to make them available for both switching and road service.

SPECIAL

► *Santa Fe.*—Has purchased 20 Flexi-Van highway units from Strick for its subsidiary, Santa Fe Trail Transportation Co.

More Trip Leases?

ICC ruling opens way for extension of the practice.

More private trucks with drivers will become available for trip-leasing to common and contract truckers. The ICC has ruled that private trucks carrying fresh meats and meat products are among those exempt from the requirement that leases be for terms of not less than 30 days.

The trip-lease is an arrangement which gives motor carriers an important competitive advantage. It permits them to hire private trucks with drivers, on return-haul-payment bases, to provide services where operations would be more costly if performed with their own equipment.

The Commission's decision was in response to a petition filed by Swift & Company. It interpreted exemption provisions of the law enacted Aug. 3, 1956, to state congressional policy on the leasing controversy.

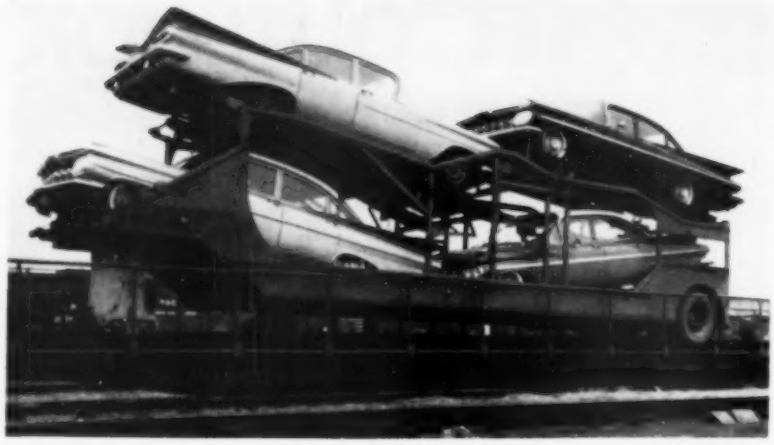
The legislation came after there had been much protesting against the 30-day requirement. It permits the Commission to leave that minimum term in its leasing rules, but exempts trucks carrying property "of a character embraced within section 203 (b) (6), or perishable products manufactured from perishable property of a character embraced within section 203 (b) (6)."

Livestock Held 'Perishable'

Section 203 (b) (6) contains the Motor Carrier Act's so-called agricultural exemptions which exclude for-hire carriage of the commodities covered from all regulation except that relating to safety of operations. However, fresh meats and other meat products are not among the commodities covered.

The Commission nevertheless qualified them for the leasing-rules exemption by finding them to be "perishable products of livestock." That involved considering livestock as a "perishable property."

It was a 6-to-5 decision. Commissioner Walrath filed a dissenting opinion to which Chairman Tuggle and Commissioners Arpaia, McPherson and Webb subscribed. They thought the Commission should have kept the leasing-rules exemptions in line with the agricultural exemptions. "Perishable" should have been given its "ordinary meaning in transportation parlance," they argued, adding that it could not have the meaning "liable to die" which is "necessarily inherent" in the majority's conclusion that livestock is "perishable property."



FOUR CHEVROLETS (half a TOFC load) nest in trailer rig on SP flat car. Shipment is shown at destination after a trip of almost 900 miles.

NEEDING A WASH JOB, this new car reached the dealer after delivery by over-the-road truckaway service.

SP Testing Auto Piggyback

Railroads on the West Coast were watching with growing interest last week as a new piggyback idea began taking shape.

The plan—moving new automobiles piggyback in truckaway-type open trailers—is being tested and studied on the Southern Pacific. At least one other railroad is reported to be making similar tests.

While the plan is understood to be completely experimental so far, some 18 test shipments have been made between a General Motors plant at Oakland, Cal., and Portland, Ore. At least one shipment moved Oakland-Seattle.

Trailer equipment being used in the test is likely to change in some details if the test runs prove out. To get the experiment started, SP modified older trailers to handle four 1959 model Chevrolets each.

The auto-carrying trailers are being handled on Clejan-type flat cars.

Initial runs on this new operation have shown that piggybacked automobiles arrive "in excellent condition with no damage whatsoever." One observer at Portland pointed out that cars handled in conventional truckaway service often arrive dirty.

From the shipper standpoint, the piggybacking of new automobiles promises a way to bring some prime business back to the railroads. In 1957, railroads moved only the equivalent of three weeks' production of autos.

It also, according to reports on the SP test, is a way to satisfy dealer demands for delivery on shorter schedules and with cars in better condition.

Conceivably, under the piggybacking setup, railroads could cut their rates and still have the same per-car revenue. An automobile box car can handle four autos; but eight could be loaded on a 75- or 85-ft piggyback flat car.

Efforts to increase per-car revenue of auto transporters are not new. Two years ago, Canadian National put into service 25 double-deck, 78-ft automobile transporters capable of holding eight cars apiece—in effect, "overgrown box cars" (RA, Jan. 28, 1957, p. 24). CNR is now awaiting delivery of an additional 50 double-deckers holding eight autos, plus 75 holding six (RA, Jan. 19, p. 111).

At one time Rock Island contemplated piggybacking automobiles on Adapto flat cars (RA, Feb. 11, 1957, p. 34).

Rate Tied to Volume Allowed by the ICC

The ICC has permitted eastern railroads to offer reduced rates, conditioned on volume, to receivers of coal in the New York harbor area.

The Commission refused to suspend the involved tariff which thus became effective last week. At the same time, however, it instituted an investigation of the discount plan, docketing the probe as No. 32871.

The eastern roads told the Commission that they were offering the discount because they were faced with the threat that more than 2,000,000 tons of bituminous coal now moving into the New York harbor area by rail would be displaced by imported residual fuel oil.

The only protestant seeking suspension of the tariff was the Empire State Petroleum Association. It said it had some 275 members who sell fuel oil which they bring into New York by water, highway and pipeline. The protest said the discount plan, advanced by the railroads to "meet" oil competition, is "more properly called" a plan to "eliminate" oil competition.

The association went on to assert that the discount would "severely disrupt the fuel market in New York City." It added that its members would have to cut their delivered prices of oil by 6% to remain competitive.

Coal producers asked the Commission not to suspend, and New York's Consolidated Edison Company is understood to have estimated that its annual savings from use of the discount plan will amount to about $2,500,000. Before the discount was offered, the power company planned to substitute imported oil for a substantial part of the coal it now uses. The petroleum association's protest alleged that there was "probably only one consumer of coal of sufficient volume to use the tariff."

The tariff provides that industries in the New York harbor area which receive at least 5,500,000 tons of coal a year will get a rate cut of 50 cents per ton on all coal received in excess of 3,000,000 tons a year. Thus a receiver who met the 5,500,000-ton volume requirement would pay regular rates on the first 3,000,000 tons and get the discount on all additional tonnage.

The coal may come off any of the 38 railroads which are parties to the tariff. And it does not have to move all-rail. It may be trans-shipped by barge from points in the New York harbor area—or even from Hampton Roads ports.

The year in which the volume requirement is to be met is the so-called coal year, beginning Apr. 1. The tariff is now on a one-year basis, with an expiration date of Mar. 31, 1960. There are surety-bond and policing arrangements to assure collection of charges on the basis of the normal rates if the volume requirement is not met.

The railroads told the Commission that the discount plan resulted from studies of the competitive situation, which were made in conjunction with interested industries. The 5,500,000-ton volume requirement was called a "safeguard" to assure "that our present position in the handling of coal will be retained as contemplated by the adjustment."

The Commission's investigation order said that assignment of the case for hearing would come in a later notice.

A similar volume-rate plan, which has kept coal moving to plants of another utility company, is already before the Commission. That's the incentive-rate arrangement, in effect since Aug. 1, 1958, which has persuaded the Virginia Electric & Power Company not to proceed with plans to build a mine-mouth generating plant and thus end its dependence on rail transportation. (RA, Feb. 23, p. 9.)

PASSENGER LOSSES RISE IN EAST *(Continued from page 9)*

streamlined coaches and diners—to the Wabash.

● Baltimore & Ohio put some of its sleepers into government storage.

Few eastern roads put new passenger equipment into service in the face of the downward trend. Pennsylvania placed six Budd-built Pioneer III MU cars in suburban service. B&O added two Slumbercoaches to its fleet.

Some roads looked hopefully to fare increases to arrest the decline in passenger revenues. New York Central and Pennsylvania boosted coach fares 5% on Jan. 1 and again on Nov. 1, also raised first class fares 15% on Nov. 1. New Haven raised fares twice in 1958—5% on July 1 for all fares, and an extra 5% Dec. 1 for coach and first class fares.

Other roads made much of the fact that they were resisting fare increases. The B&O, which has not increased coach or first class fares for several years, began emphasizing its "hold-the-line" policy in advertising just before Christmas. Result: "substantial" increases in revenue at selected cities. Lackawanna also touted its lower fares in advertising, found the response "extremely favorable."

Most eastern roads last year offered some kind of incentive fares. PRR incentives included family fares, ladies day specials, thrift tickets, coach party fares. B&O advertised family fares, group economy fares (for three or more passengers), party coach fares, and, in certain areas, special 30-day round-trip coach fares.

Lackawanna found that its special mid-week coach excursion fare had the effect of spreading business more evenly throughout the week. New Haven moved soon after the first of this year to establish a 180% 30-day round-trip fare for parlor and sleeping cars, similar to the 180% coach round-trip already in effect; last week the New Haven was reestablishing family fares.

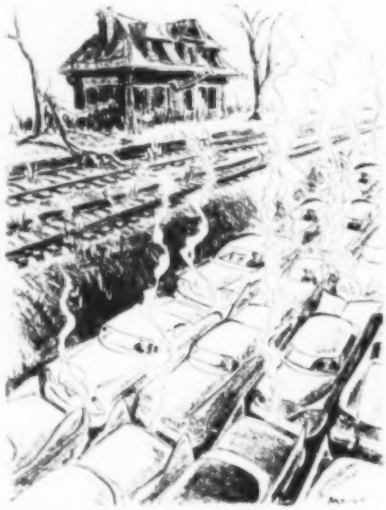
There were some bright spots in the eastern passenger picture. The PRR's "Broadway Limited" between New York and Chicago was operating close to capacity during the latter part of the year—the result, the road felt, of a consistently high level of service and an active sales program that included extensive advertising and personal contacts. B&O found something to cheer about in its Baltimore-Chicago Slumbercoach service. The thrift sleepers were running at better than 90% occupancy at year's end.

But the overall picture was not an encouraging one. There were—and are—several reasons why eastern passenger traffic men feel that their problems may be more acute than elsewhere in the nation.

They point out that they have to contend with a thickly webbed network of superhighways at a time when the strongest competition to public transportation comes from the private auto.

They are also plagued by terminal costs that are inflated out of proportion by the large number of terminals and the high taxes that are based on the high land values of metropolitan areas. (Taxes on Grand Central Terminal in New York City, one eastern spokesman pointed out, are greater than the taxes paid by the Santa Fe on all passenger stations along its 13,097 miles of line.)

Commuters, though they cost more to serve than trip passengers, historically get reduced rates. The railroads so far have been unable to improve the situation greatly either by raising rates or abandoning service—though they don't feel they've exhausted either possibility. Just last week the Jersey Central announced it would seek a 60% increase. In its annual report, the New Haven announced it would ask for a "substantial" commuter fare increase this spring, and at the same time attempt to curtail service in some areas.



THIS IS PROGRESS? Bill Mauldin's cartoon comment appeared in the St. Louis Post-Dispatch.

Eastern railroads have a large potential passenger market—but it's often viewed as a curse, not a blessing.

If there were no potential market, the railroads could abandon passenger service and forget their passenger problems. But when the airlines are on strike, or the weather snarls air and highway traffic—both of which plagued passengers in 1958—trains run full. Terminals are mobbed, and passengers, grumbling at delays and discomforts, are packed into coaches that ordinarily run almost empty.

This is stand-by service, yet it is needed and used just often enough to be stamped as essential in the public interest. So the service continues—and the deficits mount.

There have been endless experiments with fares, but none have been able to dent the deficit appreciably.

In 1958, most of the eastern adjustments in fares were upward, in the hope of getting more money from the hard core of people who (the railroads hoped) would travel by train regardless of expense. Business conditions in 1958 complicated matters, but the evidence seems to be that the fare increases of 1958 were no more successful than the incentive fares had been in keeping revenues stable in the face of declining volume.

Perhaps the biggest problem of the eastern passenger carriers is that rail management does not have a free hand to operate the passenger business in the way it thinks best.

A case in point involves two passenger trains, running between two large cities in an eastern state. One was making its out-of-pocket expenses as a limited train. The other was losing its shirt stopping at every fencepost. The railroad went to the state commission with a request to drop the local.

The commission agreed—if the limited schedule would be rearranged to include all the stops of the local. This was done, with the result that instead of one train making its expenses and one losing, the railroad now operates only one train—on the losing schedule.

Some eastern passenger men see hope in the fact that a few areas seem to be ready to admit at last that passenger losses are a problem that concerns the whole area, not just the railroad that's losing money. In Boston and Philadelphia, steps were taken last year toward assuming some of the responsibility for passenger losses.

In Boston, the Massachusetts legislature voted to tax 38 towns including Boston to indemnify the New Haven for half of its $1,800,000 losses in keeping its Old Colony commuter line in operation for a year (RA, Aug. 4, 1958, p. 34).

In Philadelphia, the city council approved an experiment under which the city would pay the Pennsylvania and Reading $160,000 to add more trains and reduce fares from the Chestnut Hill area to downtown Philadelphia (RA, Oct. 27, 1958, p. 82).

People in the News

ATLANTIC COAST LINE.—**J. B. Styles,** assistant engineer of statistics, Wilmington, N.C., appointed engineer of statistics there, succeeding **J. L. Willcox,** retired.

BELT OF CHICAGO.—**John Sutka,** assistant master mechanic, Chicago & Western Indiana, appointed superintendent, car department, Belt, Chicago. Title of **V. L. Smith,** superintendent mechanical department, changed to superintendent motive power.

CHICAGO & EASTERN ILLINOIS.—**Arthur J. Lahey,** traveling agent, promoted to general agent, Chicago Heights, Ill.

R. L. Price appointed assistant freight sales manager, Detroit.

FORT WORTH & DENVER.—**E. C. Kuykendall,** general agent, Wichita Falls, Tex., appointed assistant freight traffic manager, Houston, Tex., succeeding **Joseph V. Maxwell,** transferred to Fort Worth. **T. Keith Summers,** city freight and passenger agent, Dallas, succeeds Mr. Kuykendall.

GULF, COLORADO & SANTA FE.—**J. D. Nimmo,** master mechanic, Cleburne, Tex., given jurisdiction over the Northern division, and **J. G. Donneberg,** master mechanic, Temple, Tex., jurisdiction over the Southern division.

GULF, MOBILE & OHIO.—**R. J. Puff** appointed general freight agent, St. Louis.

J. G. Glaeser appointed district freight traffic manager, Minneapolis, Minn., succeeding the late **B. B. Briggs.**

MINNEAPOLIS & ST. LOUIS.—**C. Dale Ruffcorn,** manager of traffic services, Minneapolis, advanced to director of piggyback and barge services.

Vernon G. Russell, freight traffic manager in charge of sales, Minneapolis, named director of industrial development. **Joseph J. Mullen,** general agent, Philadelphia, appointed to succeed Mr. Russell. **Robert W. Christie,** assistant general freight traffic manager, named freight traffic manager to supervise all sales offices.

NATIONAL MEDIATION BOARD.—The Senate has confirmed President Eisenhower's reappointment of **Francis A. O'Neill, Jr.,** for a new three-year term. Mr. O'Neill has been a member of NMB since 1947.

NICKEL PLATE.—**E. G. Parker,** auditor of revenues, appointed assistant comptroller, Cleveland, succeeding **Carl H. Schempp,** who retired Feb. 1. **G. H. Atkinson,** assistant auditor of disbursements, succeeds Mr. Parker as auditor of revenues. **E. K. Birdsell,** chief clerk to auditor of disbursements, named assistant to auditor of disbursements.

ROCK ISLAND.—**Fred W. Schickling,** district freight and passenger agent, Dallas, Tex., advanced to general agent, New York, to succeed **Thomas J. Glancy,** retired. **William C. Hightower,** general agent, Houston, Tex., named general agent, Dallas, replacing Mr. Schickling. **Turner A. Rayburn, Jr.,** chief clerk in the passenger traffic office, Houston, named district traffic representative there.

SANTA FE.—**Ernest S. Marsh** elected chairman of the executive committee. He will continue as president and chief executive officer of the company.

Frank N. Grossman, special assistant, public relations department, Galveston, Tex., transferred to Chicago.

Bernard J. Carlin, assistant Chief clerk, freight traffic department, appointed assistant general freight agent, Chicago, succeeding **Robert D. Lynch,** who retired Mar. 1. **L. J. Riniker,** assistant division freight agent, Los Angeles, appointed division freight agent, San Bernardino, Cal., succeeding **L. A. Havener,** promoted to assistant to freight traffic manager, Los Angeles, a newly created post.

Supply Trade

The St. Louis division office of **Socony Mobil Oil Co., Inc.,** at 4140 Lindell Blvd., has been discontinued as of Jan. 1 and this territory has been divided between other divisions.

John T. Degman, formerly special railway representative for Oakite Products, Inc., has joined the **Chipman Chemical Company, Inc.,** as a railway sales and service representative at Chicago, according to an announcement by **Roger B. Coleman,** general manager of the company's railroad division.

R. J. McComb, vice president and sales manager of **Woodings Forge & Tool Co.** and the **Woodings-Verona Tool Works,** retired Dec. 30.

M. M. Anderson, vice president of the **Aluminum Company of America,** Pittsburgh, has been elected president of the Aluminum Association, succeeding **S. D. Den Uyl,** who has been elected chairman of the board.

OBITUARY

H. D. Browne, retired engineer of tests, **Chicago & North Western,** died Feb. 25 at Cocoa Beach, Fla.

You Ought To Know...

Two new overnight freight trains between Chicago and Minneapolis-St. Paul, via Janesville and Madison, Wis., have been scheduled by Chicago & North Western. Until now, all through freights between Chicago and the Twin Cities operated via Milwaukee.

What would it take to eliminate a railroad's passenger deficit? Not much, really—from a mathematical standpoint. Ninety per cent of intercity passenger traffic today is by automobile, notes Hiram P. Askew, Chesapeake & Ohio general passenger traffic manager. And "if we got back 1% of that traffic on the C&O, there would be no passenger deficit."

Two modern retarder classification yards now under construction have been officially named by CNR. The $15,000,000 yard at Moncton, N. B., is to be known as Moncton Yard, and the new $28,000,000 yard at Cote de Liesse is to be called Montreal Yard. The CNR's third yard, under construction at Winnipeg, Man., is called Symington Yard, after former board member H. J. Symington.

"Systems for Cost Reduction" is the theme of the March 17-19 spring meeting of the Railway Systems and Procedures Association in Chicago. Cost reducing solutions to railroad problems through interdepartmental systems will be discussed by representatives of business machine, railroad, and airline companies.

Illinois Central's employee suggestion system was 20 years old March 6. During the two decades the plan has been in operation, 467,758 suggestions have been offered, 84,114 have been adopted. IC has paid out $1,132,909 in suggestion awards to some 16,605 employees.

Suburbs along the Burlington west of Chicago are showing renewed interest in a 1948 proposal to separate the railroad's grade from that of intersecting streets. Both elevation and depression of the right-of-way have been suggested. Some 95 crossings, as well as a major crossing and interchange with the Indiana Harbor Belt, are involved. One estimate as to cost: $40,000,000.

Milwaukee has installed its first hot box detector at Pewaukee, Wis., about 23 miles west of Milwaukee. The pen graph recorder is in a tower at Duplainville, six miles from the detector location. The operator views the recording chart, and upon noting an indicated hot box, radios to the freight train crew. He tells them that they should stop the train, and gives them the car and location of the abnormally hot journal.

AAR approval has been given for test installations of 250 sets of Budd Co.'s newly developed disc Frate-Brake on cars in interchange service. Approval was based on the results of extensive laboratory and field tests already conducted, including successful single car road tests on the SP (RA, Dec. 1, 1958, p. 28).

Cotton Belt has telephone dialing now in service at principal offices and stations along the 1,500-mile railroad. Carrier equipment installed to provide circuits for the new dialing system also provides new printing telegraph circuits from East St. Louis to Pine Bluff, Tyler and Houston. In a step toward consolidating dispatches, the StLSW moved a CTC machine from Tyler, Tex., to Pine Bluff, Ark. The 280-mile move was made by truck.

Lackawanna is participating in a new piggyback service for fresh frozen vegetables from northern Maine to the New York-New Jersey metropolitan area. Other participating roads: Bangor & Aroostook, Maine Central, Boston & Maine, Delaware & Hudson. The name of the Lackawanna was inadvertently omitted in an earlier report on the new service (RA, March 2, p. 7).

Two plans to save service for CNS&M commuters have been proposed by the Chicago Transit Authority. One is a suburban transit agency to take over the North Shore Line with CTA improving and operating it. Cost of this would be $11,750,000, plus a deficit of $500,000 a year. The other is to junk the electric line and operate buses instead. Cost of this is estimated at $2,000,000, no deficit.

DL&W's "guaranteed rate" on volume movement of crushed stone was permitted to go into effect last week. But the New York Public Service Commission, in its decision to allow the intrastate rate, announced it will conduct an investigation to see if the rate violates the law. (RA, Feb. 2, p. 9).

A call for cooperation between railroad management, labor, shippers and the general public came last week from a prominent New England industrialist. Laurence F. Whittemore, chairman of the Brown Co. and former president of the New Haven, was especially critical of "featherbedding and managerial acquiescence to its continuance." He said his company shipped and received over 20,000 cars of freight last year, but warned, "We cannot give them [the railroads] that much freight to haul if freight charges, which have already forced us out of many markets, continue to rise."

First effects of piggyback operations are credited with helping U. S. Freight Co. realize a net income of about $1,400,000 for the last half of 1958. This was more than double the first half's $638,067. The company points out, however, that the third quarter was favorably affected by traffic diverted to U. S. Freight companies from strike-bound West Coast truckers.

A model freight train has been presented by the AAR on behalf of the nation's railroads to the Senate Interstate and Foreign Commerce Committee. The double-unit diesel locomotive pulling ten freight cars of mixed types will be on permanent display in the new committee room.

Advertisers' Index

When Is Under-Maintenance Justified?

We don't know where this piece of railroad is—but its location isn't important. It is a symbol. It isn't necessarily a bad one either, but it could be.

The ties and ballast are worn out. Joints are low and springy. The kind friend who presented us with the picture tells us passenger trains use this track. Even that may be all right, if they don't travel too fast. But if they get up much speed, the customers can't expect to enjoy their journey.

There are times when undermaintenance of a piece of track is good railroading. A few years ago we observed a branch line that a railroad had sought to abandon for years—without success. It was allowed to deteriorate physically, in obedience to the sound principle that there's no point in painting an auto on its way to the junk pile.

Tired of waiting, the railroad decided to put the branch into good physical shape. It did a complete tie job (all creosoted too) as a starter, but authority to abandon came along before the job was complete. The new ties were salvaged, but there was no salvaging the labor wasted in putting them in the track and removing them—all within a year.

It is good business and good railroading to get all the revenue service possible—with maintenance sufficient only to assure safety—out of a stretch of track to be junked. So, for anything we know to the contrary, the track shown in this picture may represent a high degree of managerial prudence and competence.

But undermaintenance is good business *only* on property with the end of its earning capacity in sight. Under all other conditions, retrenchment in maintenance means only that—in the long run—maintenance cost of the track in question will be a lot more as an annual average. So, in the long run, undermaintenance or spotty maintenance or "off and on" maintenance uses up money for operating expenses that otherwise could be passed along to the stockholders in dividends.

Some variation in maintenance expense is justified in the event of a decline in traffic—but nobody knows exactly how much. Some maintenance work is necessary to prevent deterioration, even if there is no traffic. Since the usual railroad practice is to spend money when available, and not spend it when the till gets low—maintenance expenditures tend to vary upward and downward, not in relation to physical conditions, but on the state of the company's treasury.

There should be a factual determination of the ratio of maintenance cost ascribable to traffic fluctuation, and the ratio properly chargeable to weather and the passage of time. It has been suggested, incidentally, that valuable light could be thrown on this subject by conducting a test which would give actual measurements, drawn from experience. Such a test could be arranged in connection with a project where one track of a double-track line is scheduled to be taken up. A section of the second track would be left in place, and complete records kept of the comparative costs of maintaining it and the track remaining in service.

Meanwhile this question remains: What overall maintenance policy must be adopted to assure that tracks will be kept in a safe and serviceable condition at a minimum average annual cost? Most track men have a pretty good idea of the answer to this question. Their answer, for a given stretch of track, would be to put it in adequate condition for the tonnage, speeds and type of traffic carried, and then chart a long-range maintenance program designed to keep it that way.

TO GET REAL ECONOMY: Most managements would agree with the soundness of the track man's view. They are, however, under pressure to make a reasonable financial showing each year. The real solution, therefore, must lie in education of intelligent investors by management. It is the investors who, in the long run, collect the reward for an economical track maintenance policy.

Harnesses of Okonite-Okoprene DEL control wire for Southern Railway System's Diesel locomotives are shown being assembled around "pegs" on a lay-out table at the Diesel shop in Spencer, North Carolina. Terminals are attached to each wire and the assembly is taped or laced with twine so that the whole unit can be lifted into position in the Diesels. Larger size wires are handled individually.

How the Southern makes a better harness for a modern Iron Horse

Everything is up-to-date on the Southern Railway System's main line . . . including the insulated cable on its Diesel Electric Locomotives. With its efficiently-operated 8,092 miles of road, Dieselized since 1953, the Southern knows that there is no tougher service installation for an insulated wire or cable than is found on a Diesel locomotive.

Southern engineers use Okonite Diesel Electric Locomotive Cable for Diesel generator leads, lighting systems, motor leads, headlight wiring and cab signal wiring. They find that it best withstands the five main causes of damage in these circuits . . . heat, moisture, oil, mechanical abuse and vibration.

Here is why Okonite-Okoprene DEL Cable meets service requirements best:

- Okoloy-coated conductors provide necessary flexibility, are easy to terminate.
- Okonite insulation gives necessary mechanical strength, elasticity, high electrical values for exceptionally long service life.
- Okoprene sheath is non-flammable, mechanically strong, moisture and oil resistant, able to withstand abrasion, sunlight and temperature extremes.
- Diesel Electric Locomotive constructions are available for both conduit and exposed installations.

Put Okonite DEL Cable to work for you. Write for Bulletin RA-1078, to The Okonite Company, Passaic, N. J.

where there's electrical power . . . there's **OKONITE CABLE**

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6182

WEED CONTROL by UROX®

Sensational Granular Herbicide Gives Longer-Lasting Control... *at Lower Cost!*

Railroads all over the country are finding they can control weeds and brush faster, easier, for a longer time and at lower cost with General Chemical's UROX Weed Killer.

Long-term control! Even in areas of heavy rainfall, UROX will usually maintain control of weeds for an 8-month period. In areas of lighter rainfall, control may remain effective for as long as 18 months after a single application.

Effects are cumulative! UROX tends to build increasing soil sterility. Its herbicidal action can thus be extended from one year to the next with small booster doses. As smaller and smaller amounts are used over a period of time, you realize substantial savings.

Amazingly effective! Granular UROX is a "root-seeker." Apply it to dense vegetation or heavy top growth—the granules roll off leaves onto the ground, where killing ingredients penetrate the soil and are absorbed by plant roots. Also, UROX controls so many different, stubborn weeds that there's no need for separate herbicidal treatments. UROX does the *entire* job!

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Cuts labor costs, too! Fewer applications . . . no mixing . . . cumulative effects—they add up to significantly lower costs. What's more, you can apply UROX in the winter, when many maintenance crews are idle.

Get the whole story! Write today for our new full-color UROX folder, "Candidly Speaking." You'll see the unretouched, candid-camera evidence of UROX's effectiveness in many widely separated geographical areas, many different climatic conditions. We'll be glad to send you your free copy on request.

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